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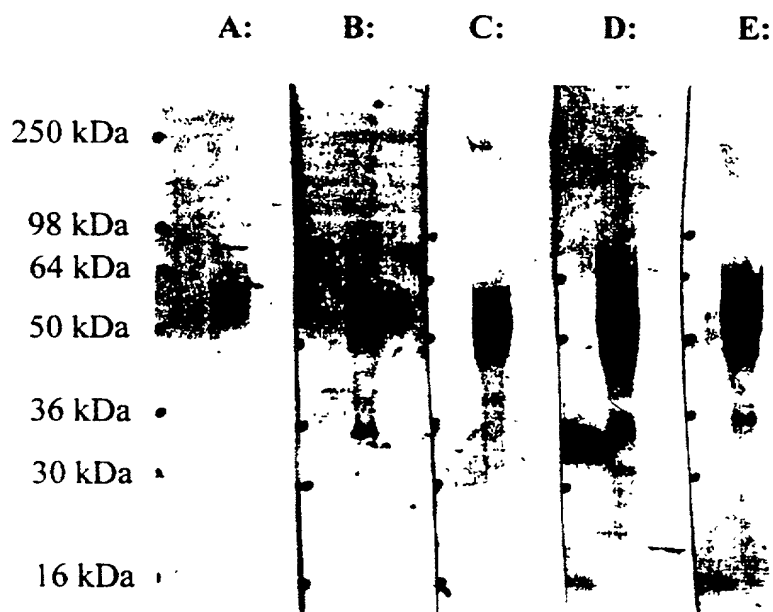


FIG. 1

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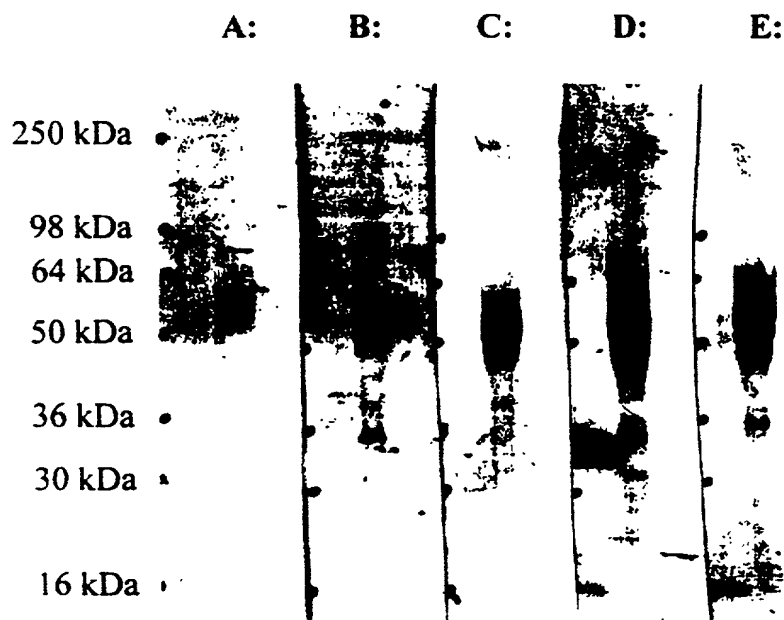


FIG.1

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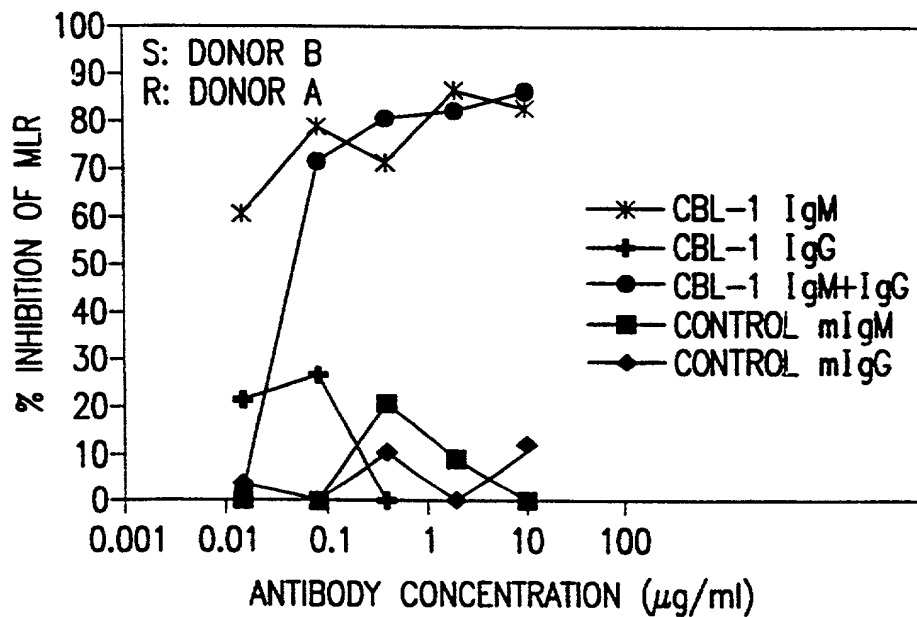
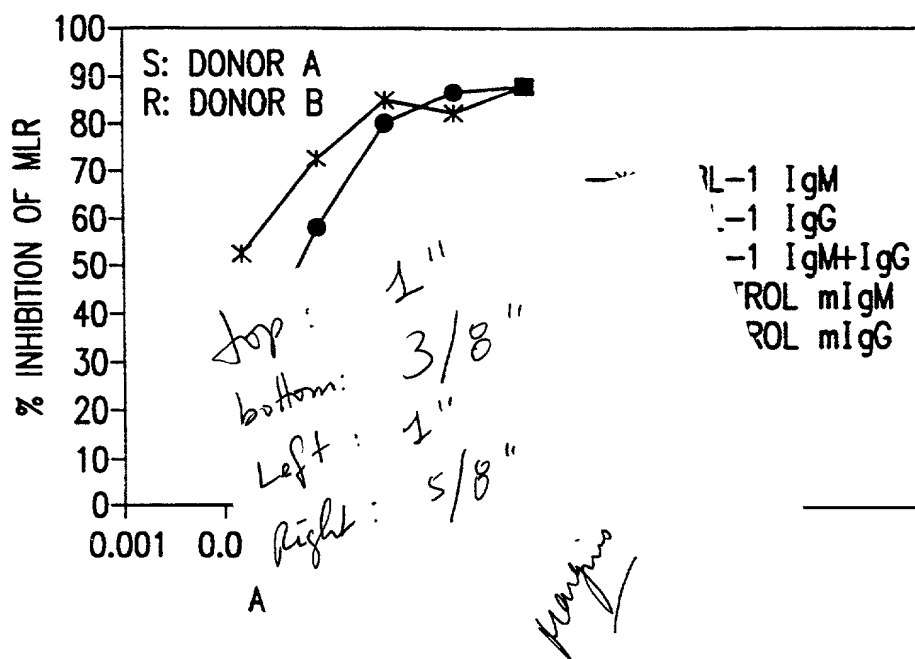


FIG.2B

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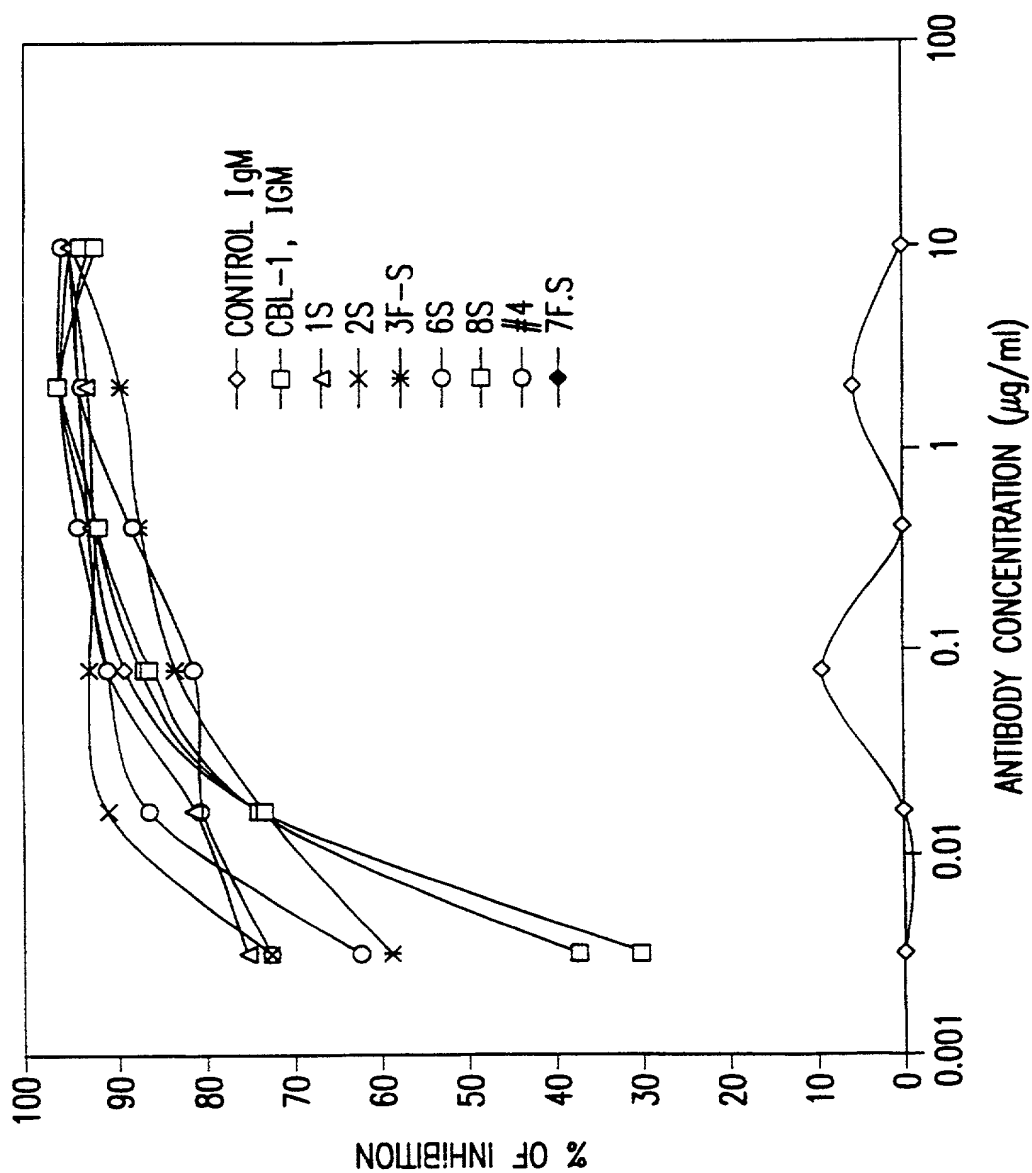


FIG.3

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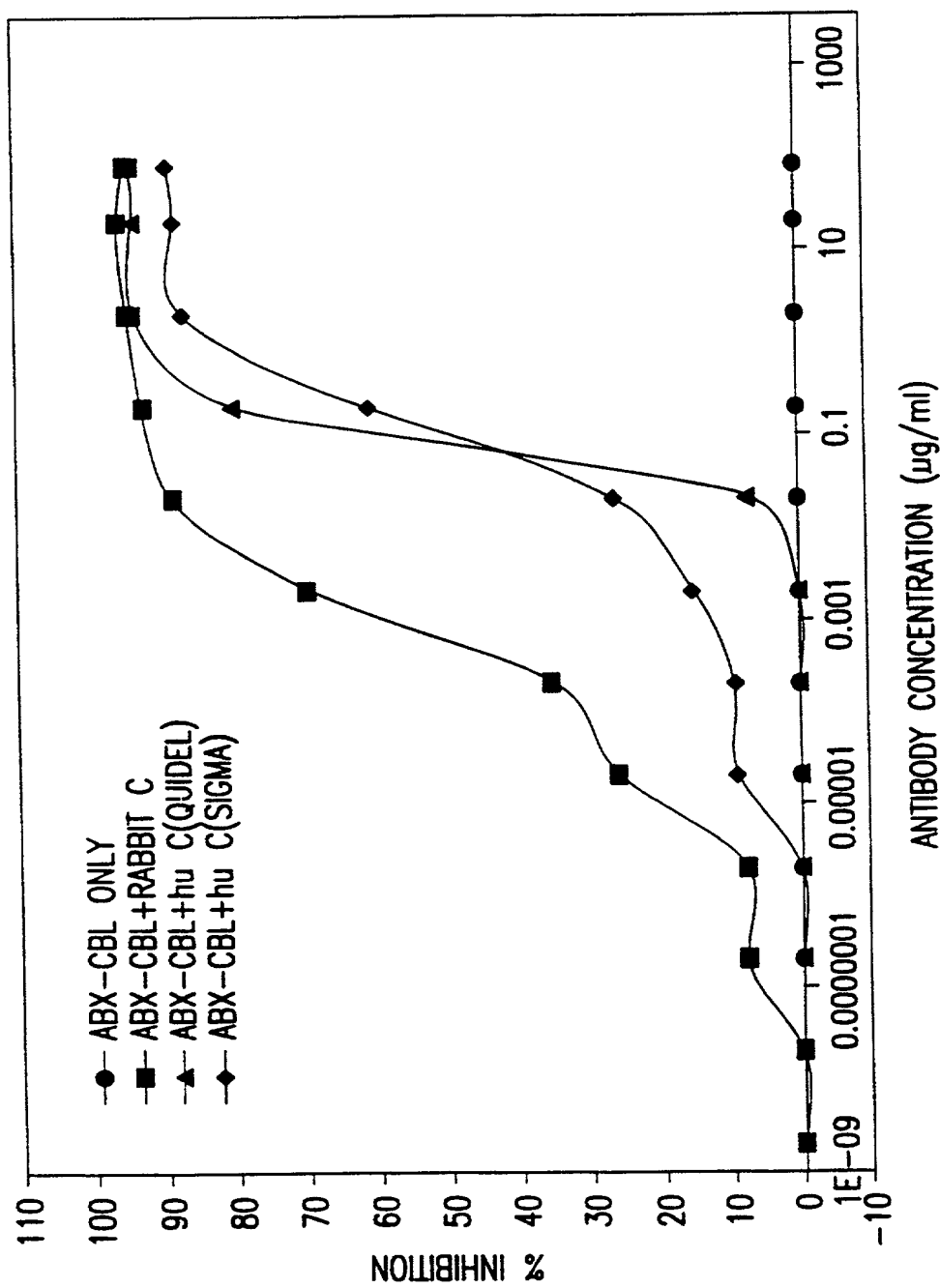


FIG.4

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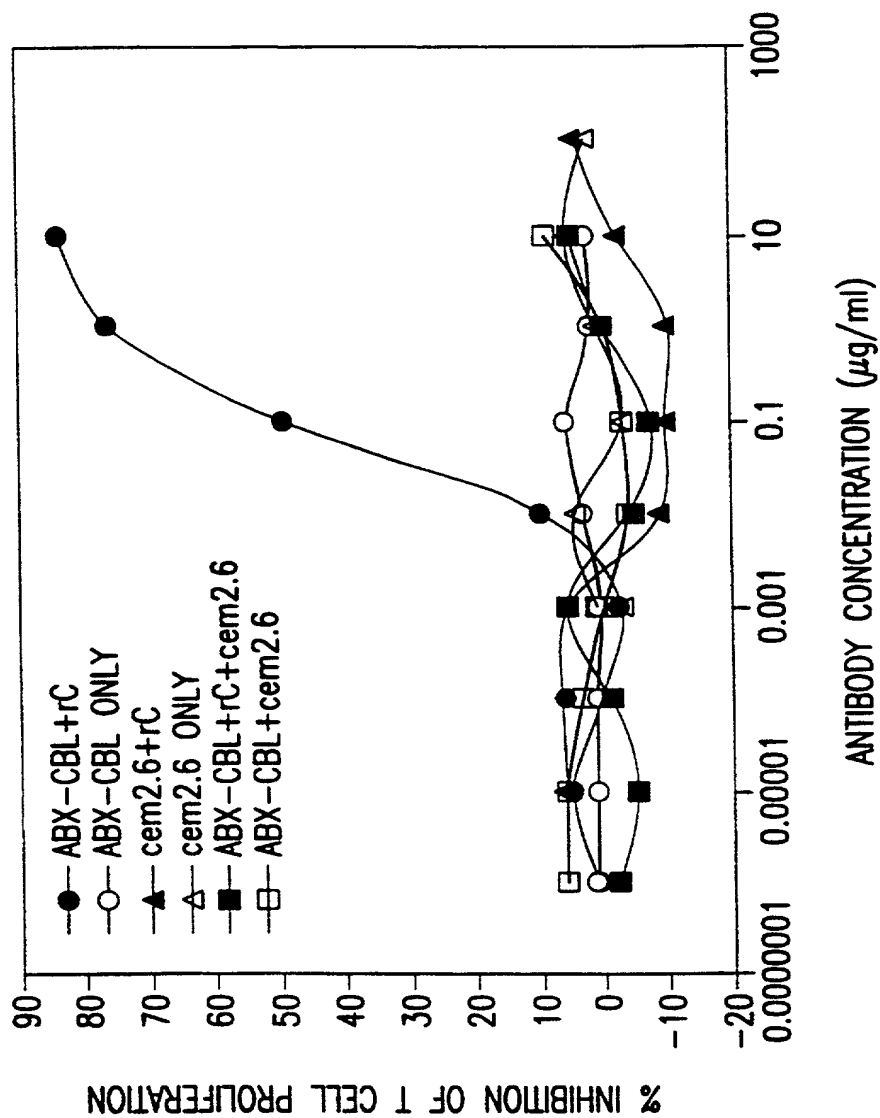


FIG.5

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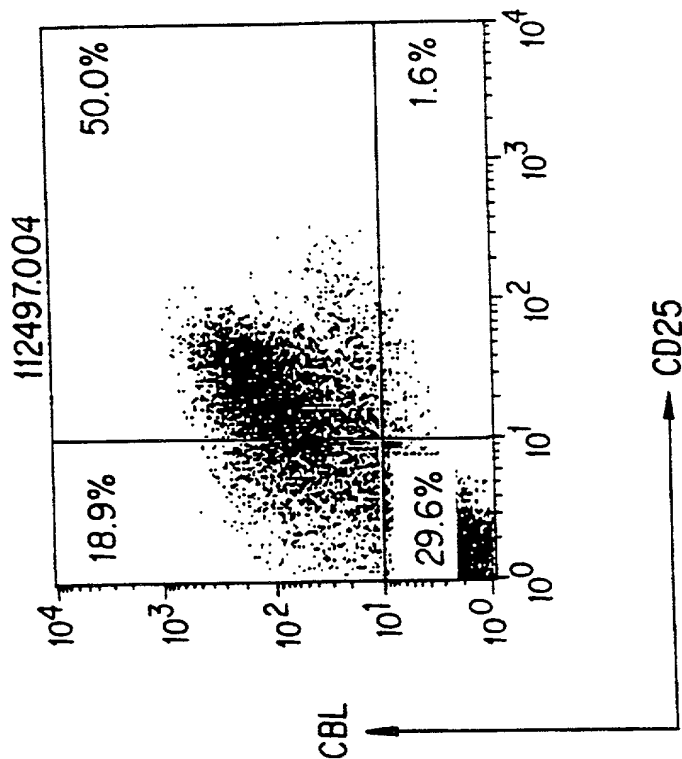


FIG. 6B

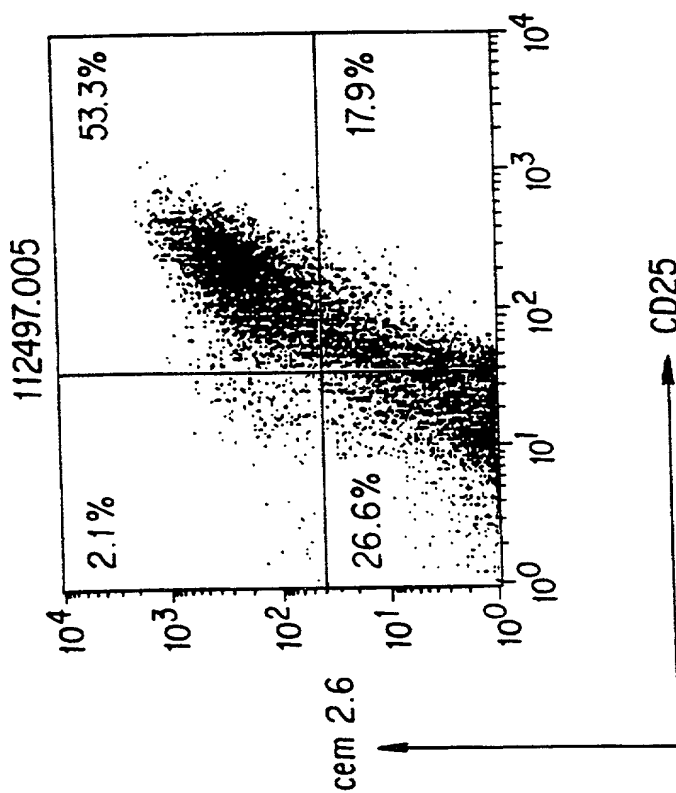
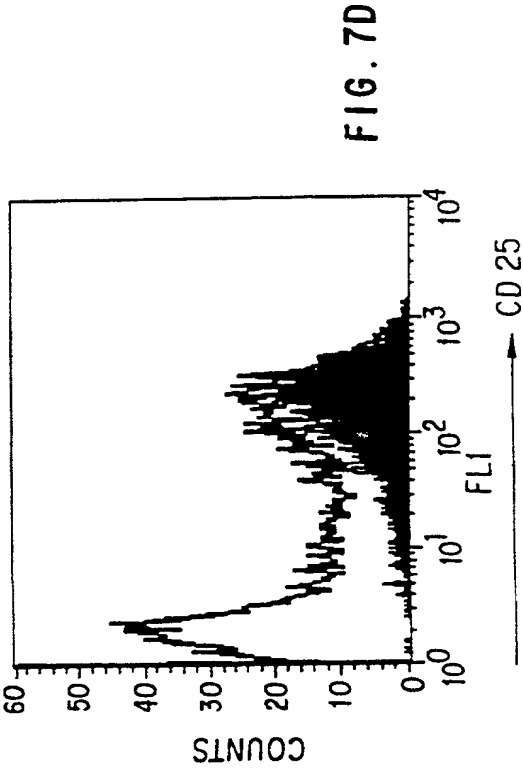
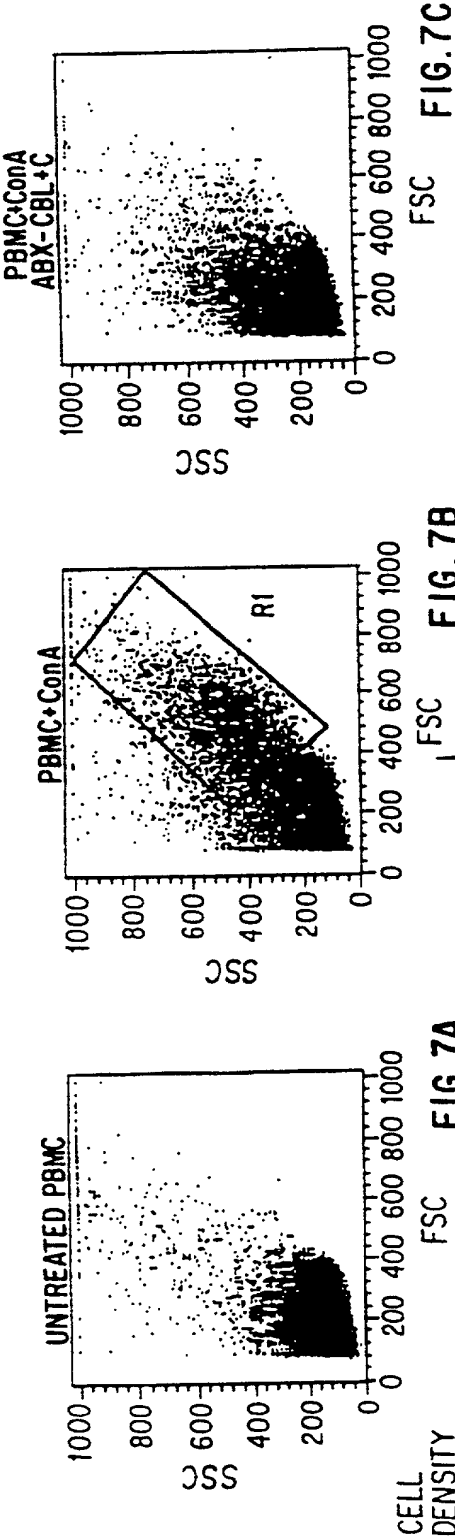


FIG. 6A



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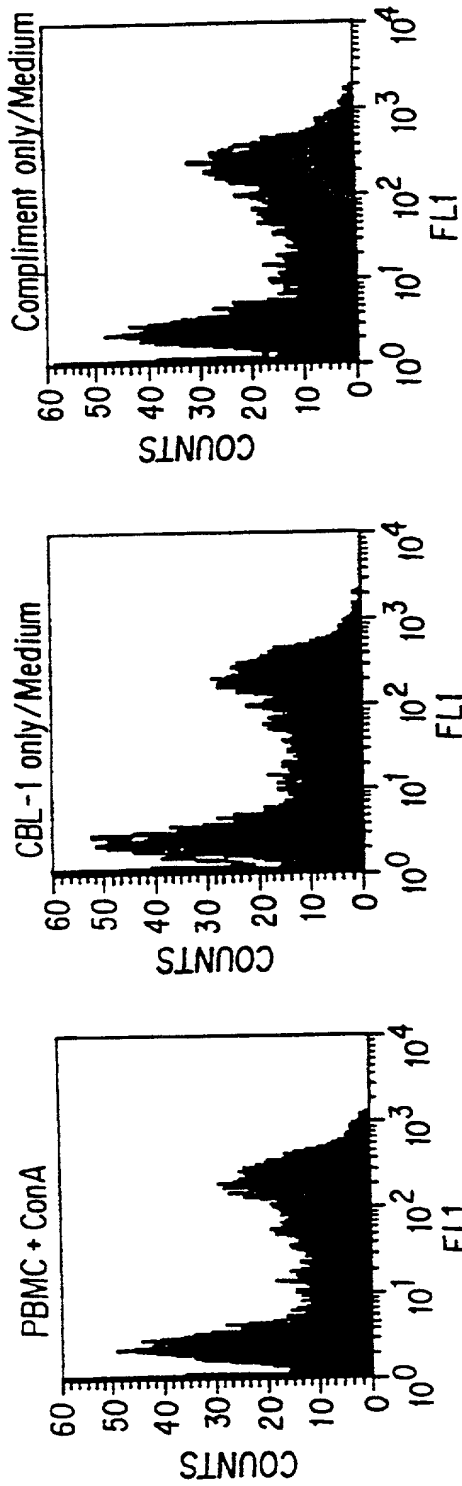


FIG. 8C

FIG. 8B

FIG. 8A

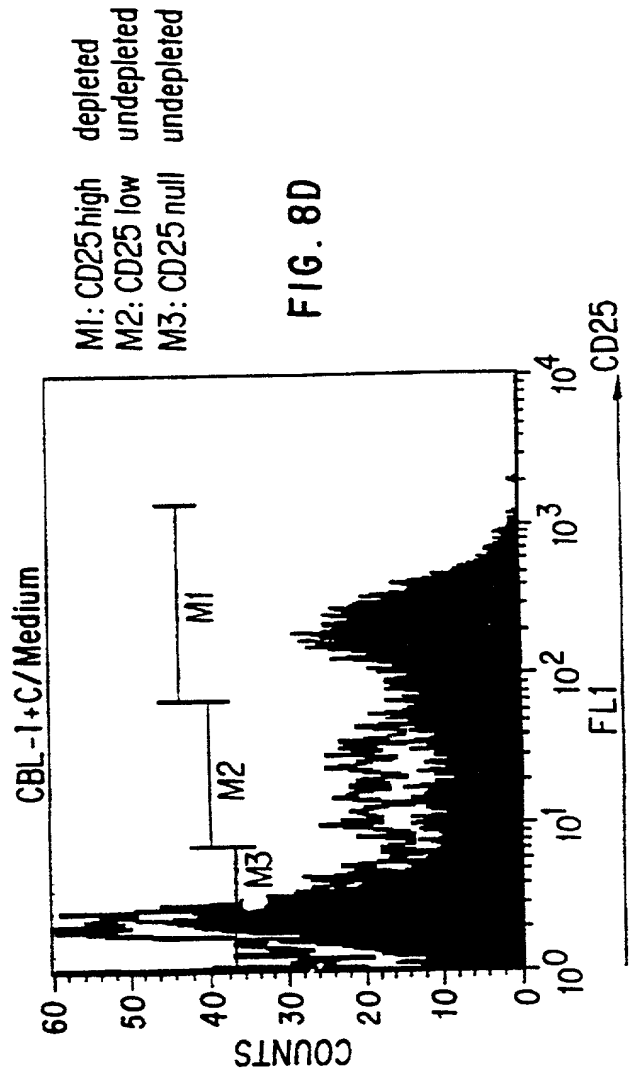


FIG. 8D

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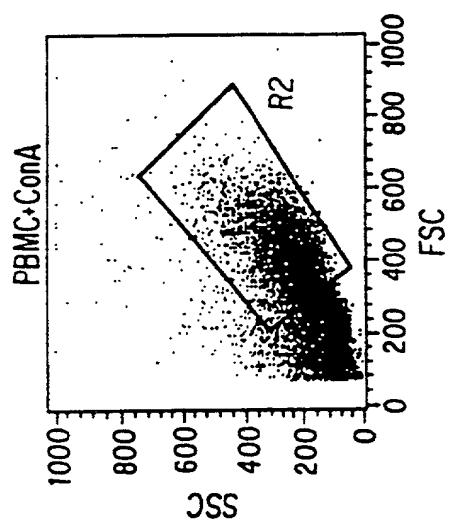


FIG. 9B

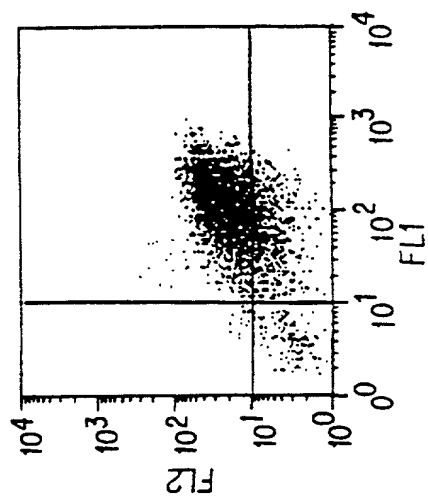


FIG. 9C

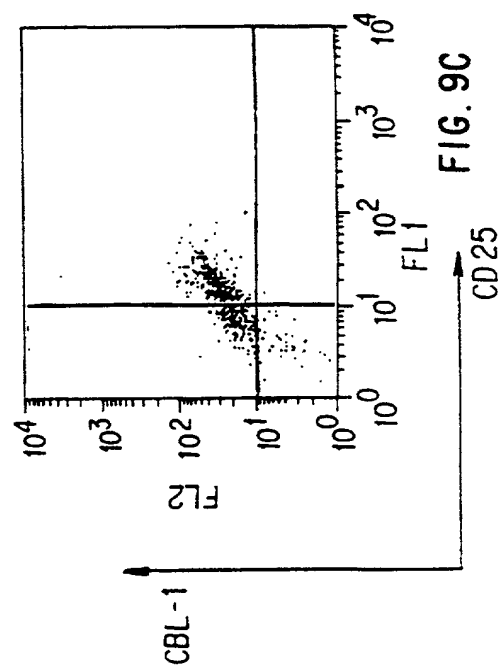
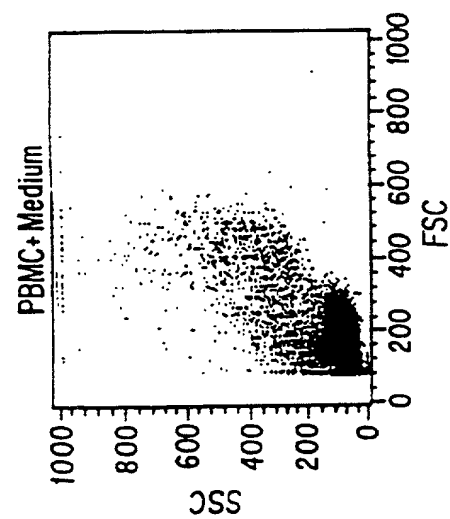


FIG. 9D



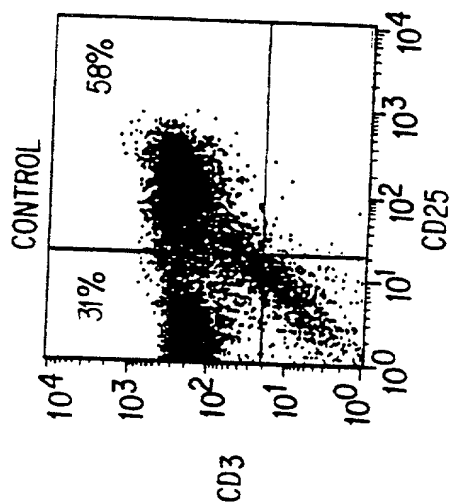


FIG. 10A

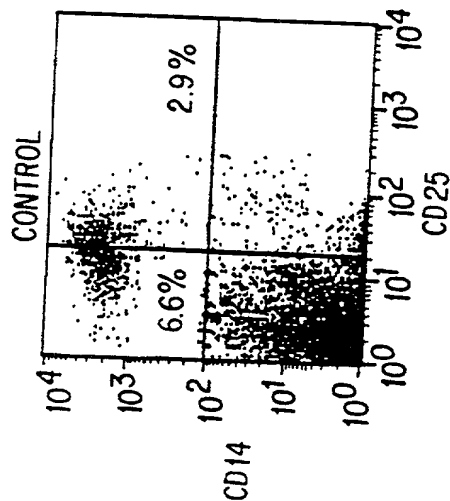


FIG. 10C

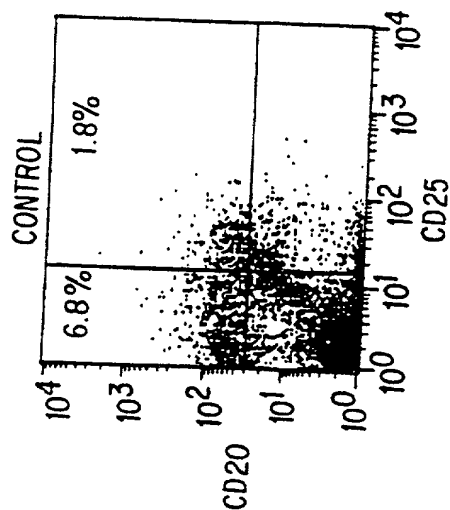


FIG. 10E

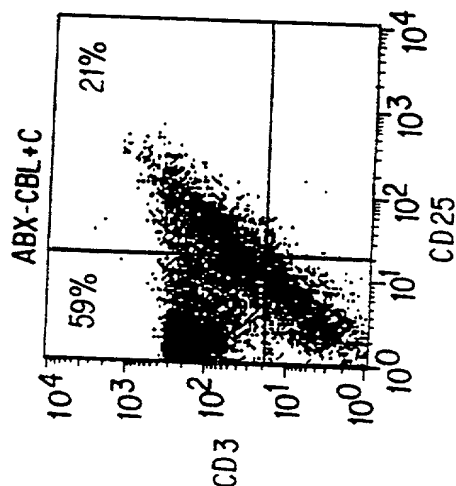


FIG. 10B

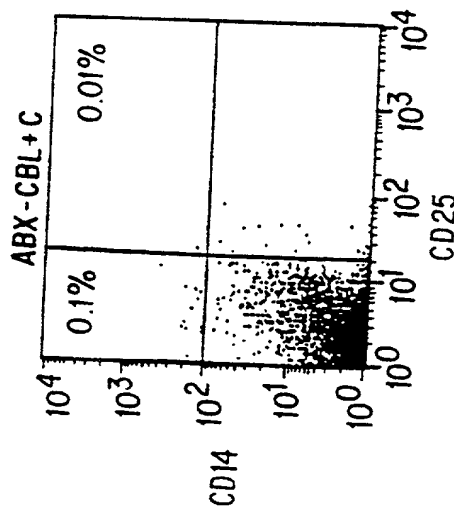


FIG. 10D

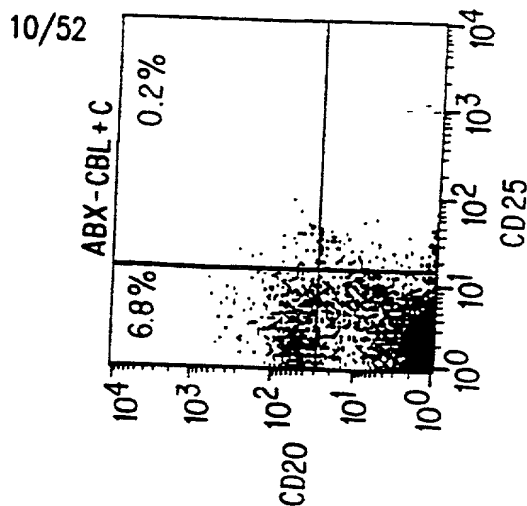


FIG. 10F

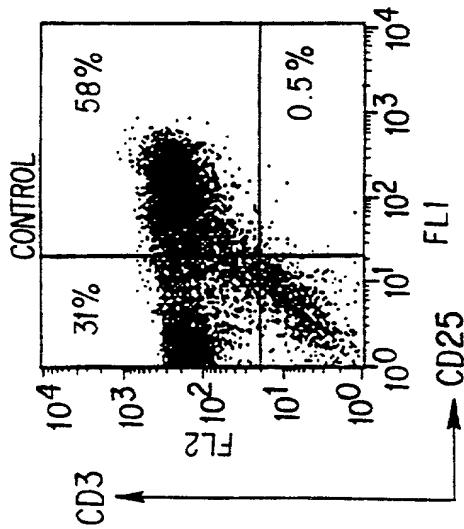


FIG. 11A

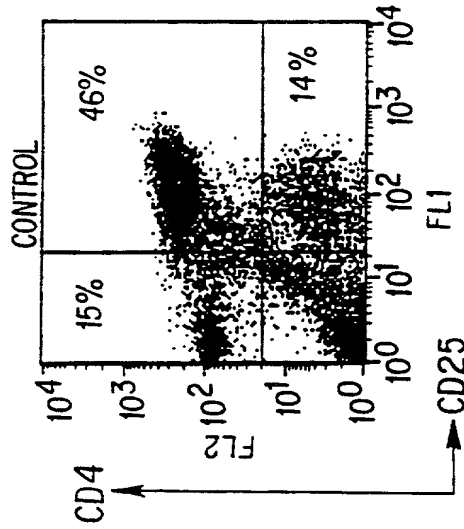


FIG. 11C

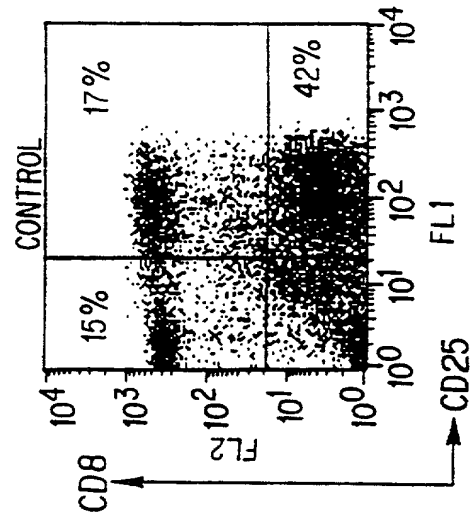


FIG. 11E

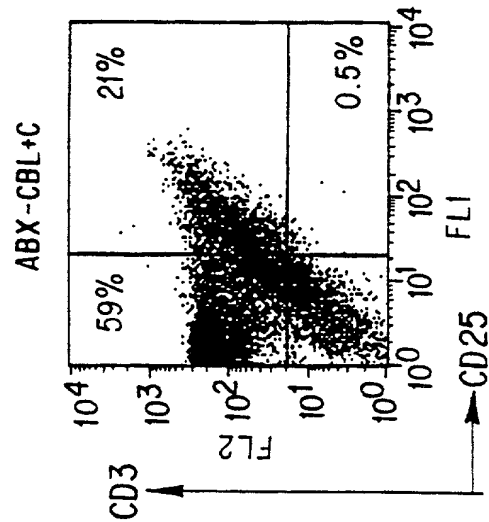


FIG. 11B

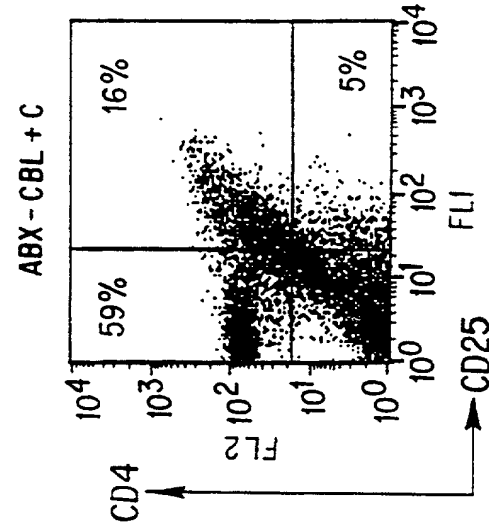


FIG. 11D

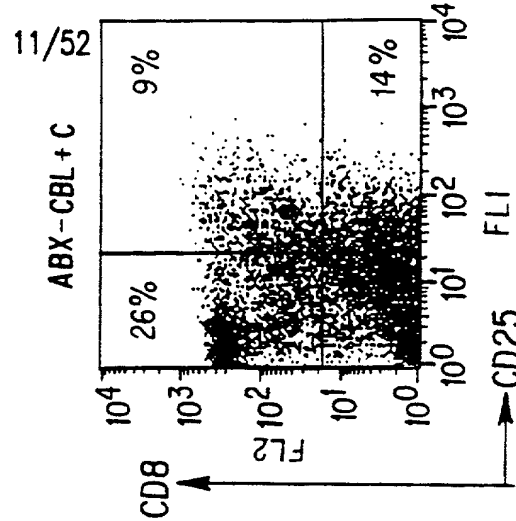


FIG. 11F

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CELL TYPE	SURFACE MARKERS	CDC DEPLETION
RESTING T CELLS	CD3 ⁺ CD25 ⁻	NO
ACTIVATED T CELLS	CD3 ⁺ (CD4 ⁺ /CD8 ⁺)CD25 ⁺	YES
RESTING B CELLS	CD20 ⁺ CD25 ⁻	NO
ACTIVATED B CELLS	CD20 ⁺ CD25 ⁺	YES
RESTING MONOCYTES	CD14 ⁺ CD25 ⁻	YES
ACTIVATED MONOCYTES	CD14 ⁺ CD25 ⁺	YES

FIG.12

CELL	CELL TYPE	CBL Ag EXPRESSION	CBL CDC
CEM	T CELL	++	+
JURKAT	T CELL	++	-
U937	MONOCYTE	++	+
A431	EPIDERMAL	++	-
SW948	COLON	+++	-
MDA468	BREAST	+	-

FIG.13

CELL	CELL TYPE	CBL EXPRESSION	CBL CDC	CD55	CD59
CEM	T CELL	++	+	-	+
JURKAT	T CELL	++	-	+	+
U937	MONOCYTE	++	+	+	-
A431	EPIDERMAL	++	-	+	+
SW948	COLON	+++	-	+	+
MDA468	BREAST	+	-	+	+

FIG.14

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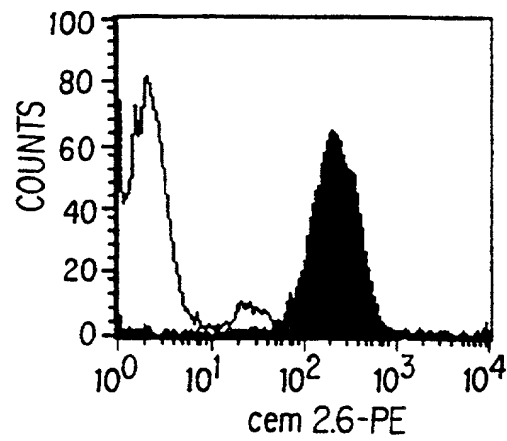


FIG. 15A

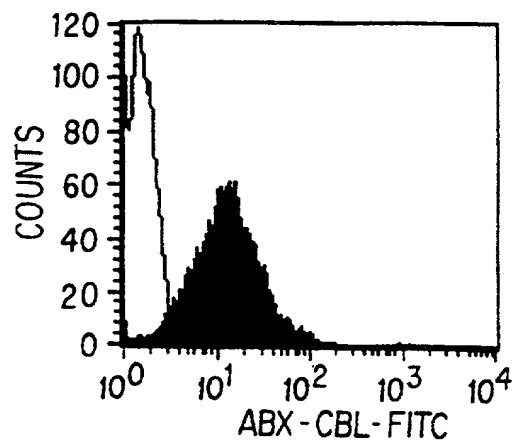


FIG. 15B

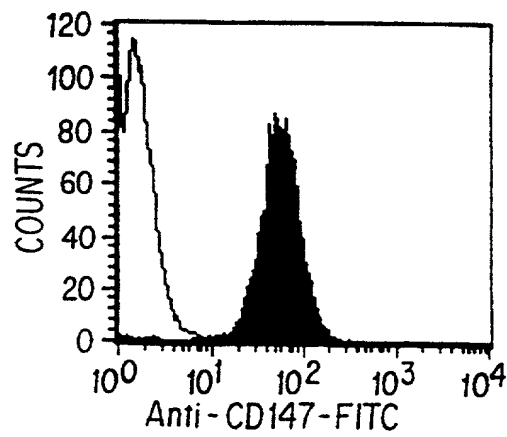


FIG. 15C

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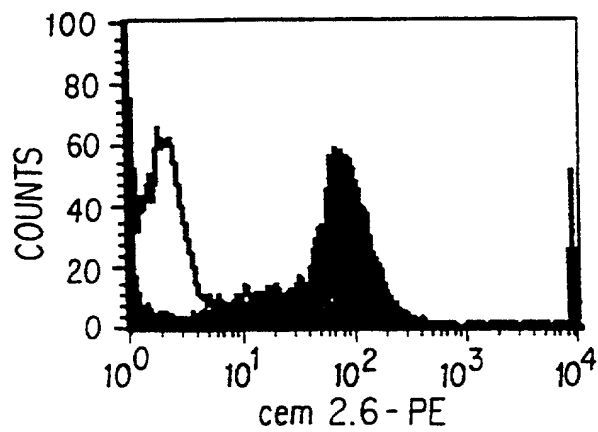


FIG. 16A

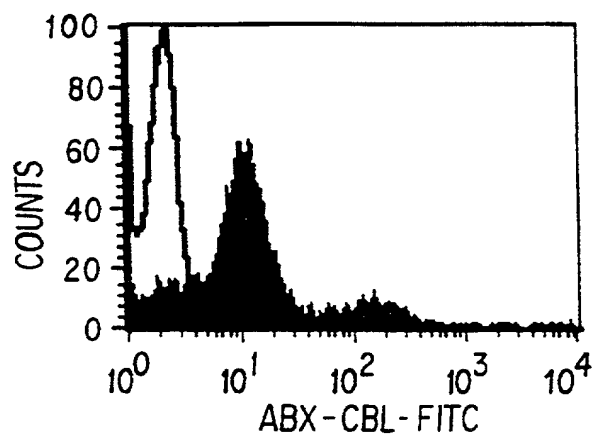


FIG. 16B

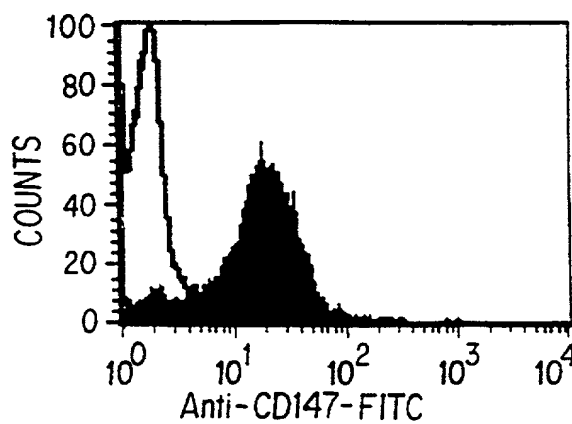


FIG. 16C

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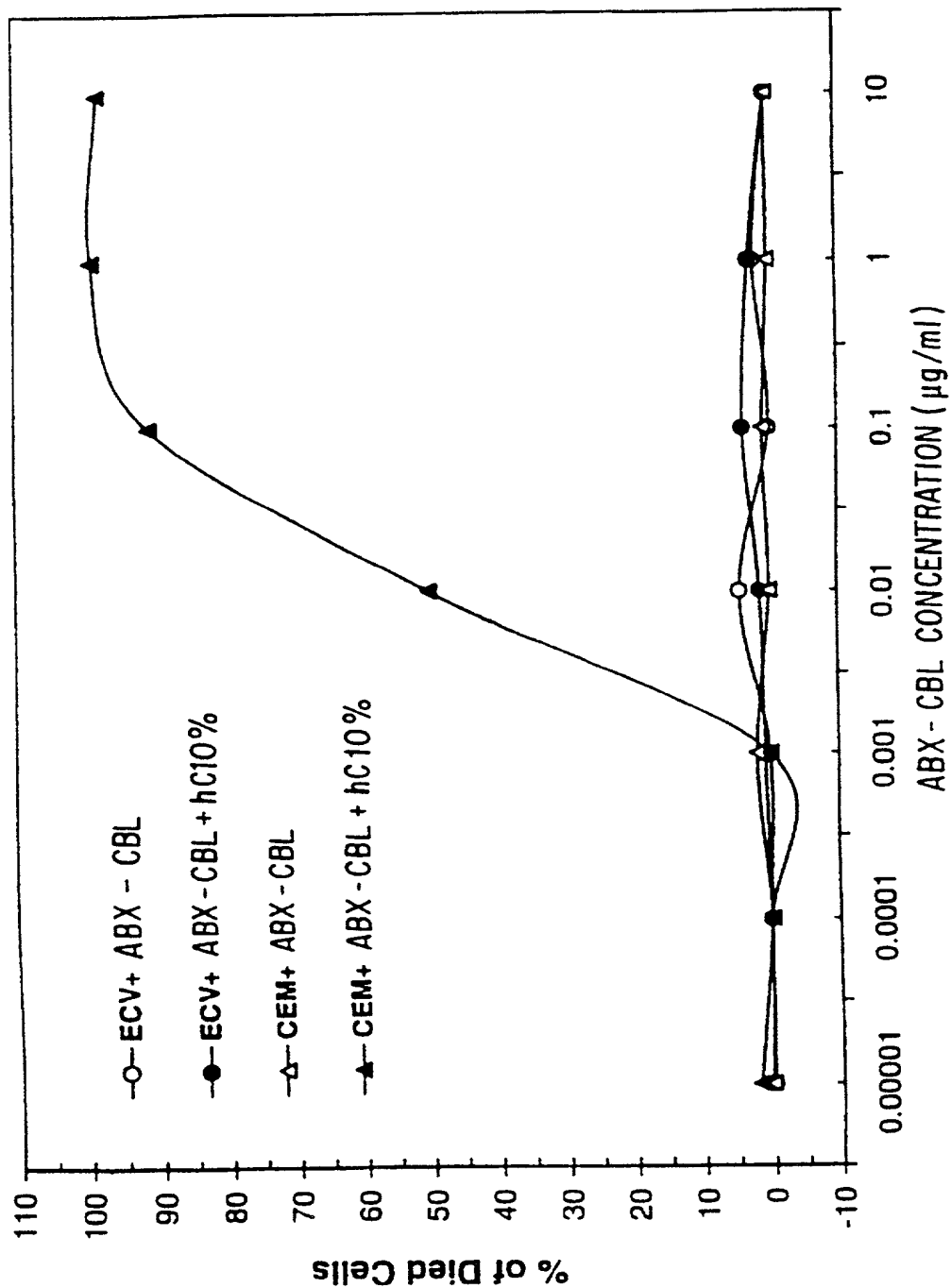


FIG. 17

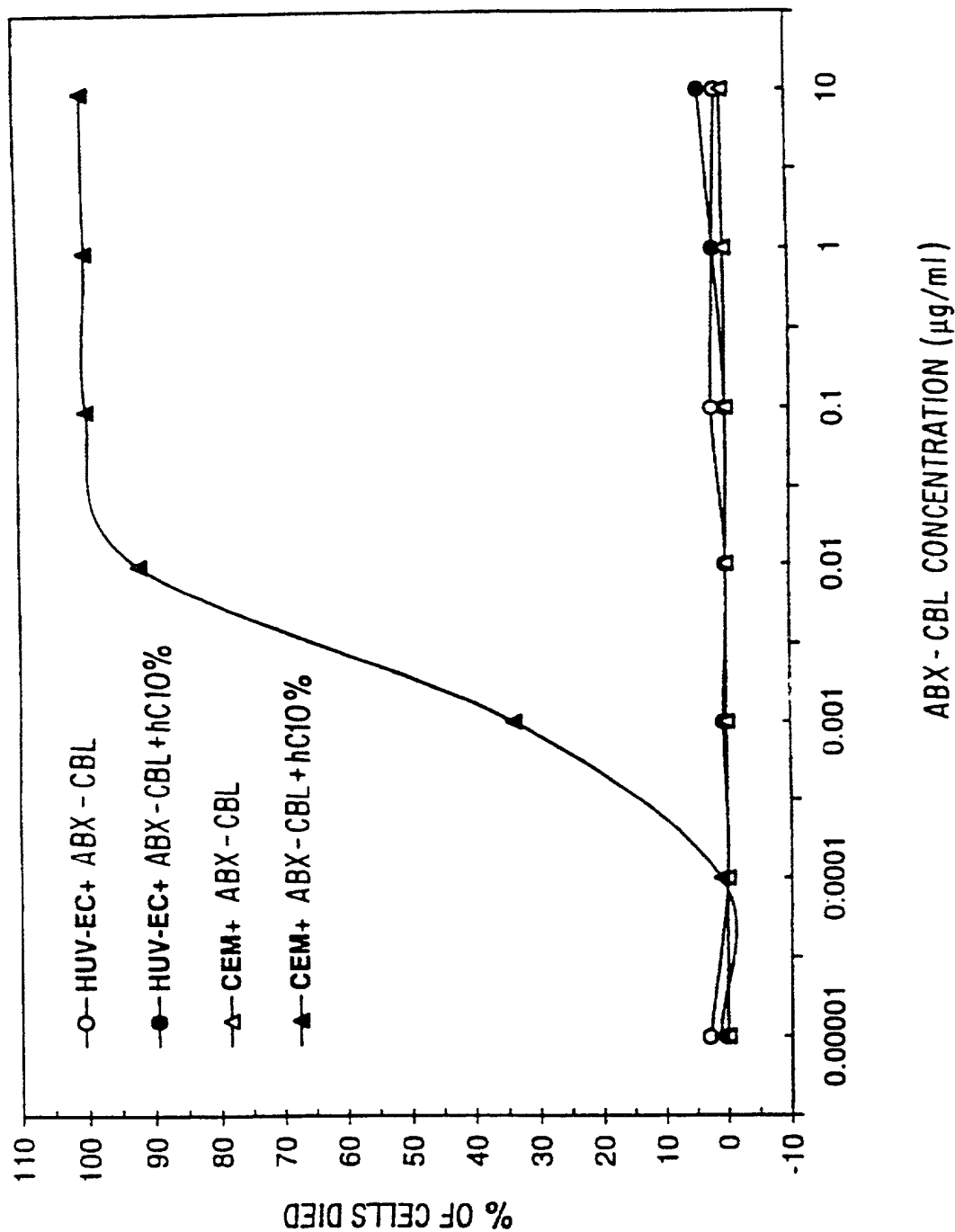


FIG. 18

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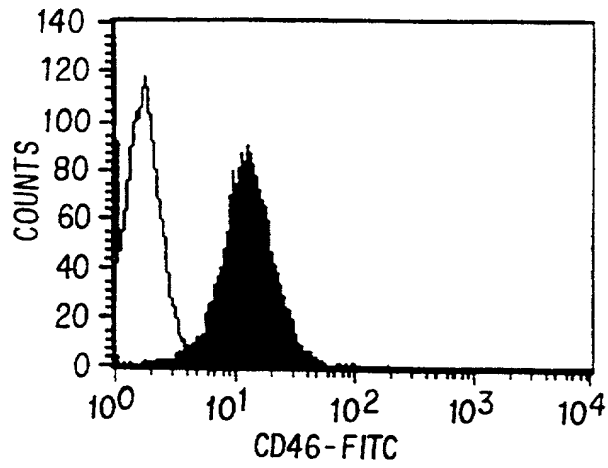


FIG. 19A

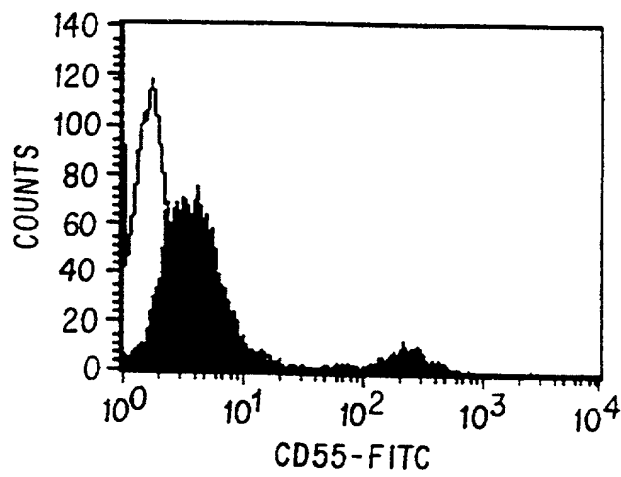


FIG. 19B

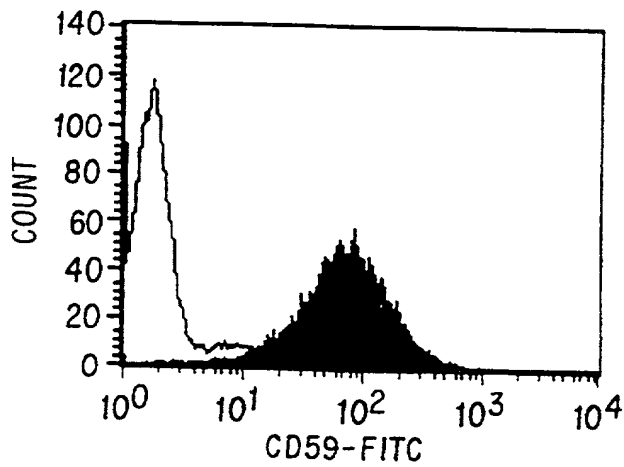


FIG. 19C

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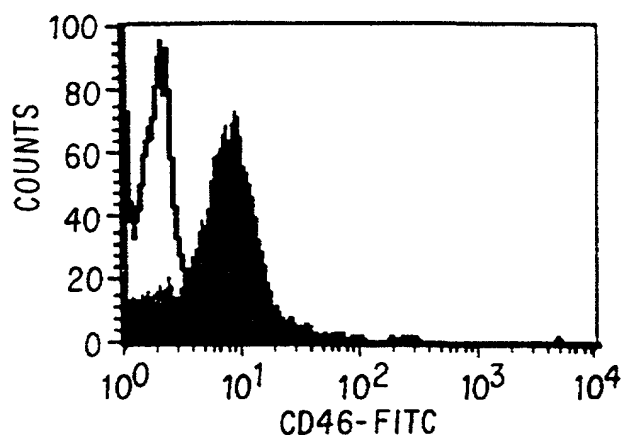


FIG. 20A

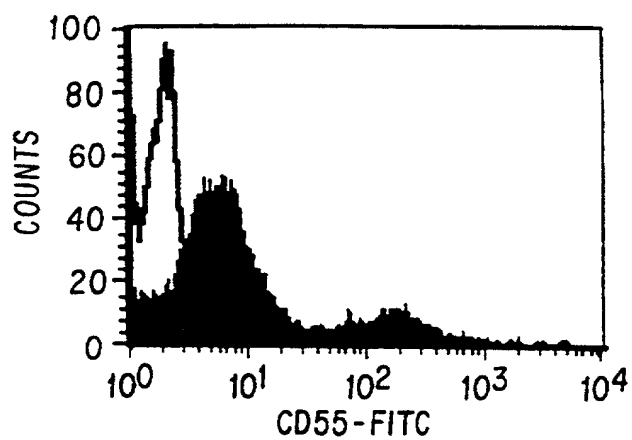


FIG. 20B

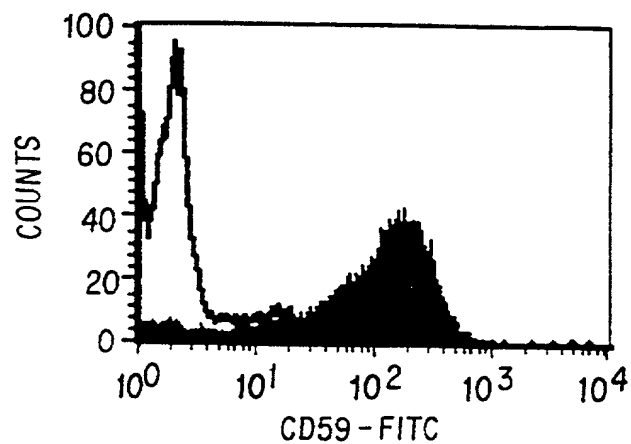


FIG. 20C

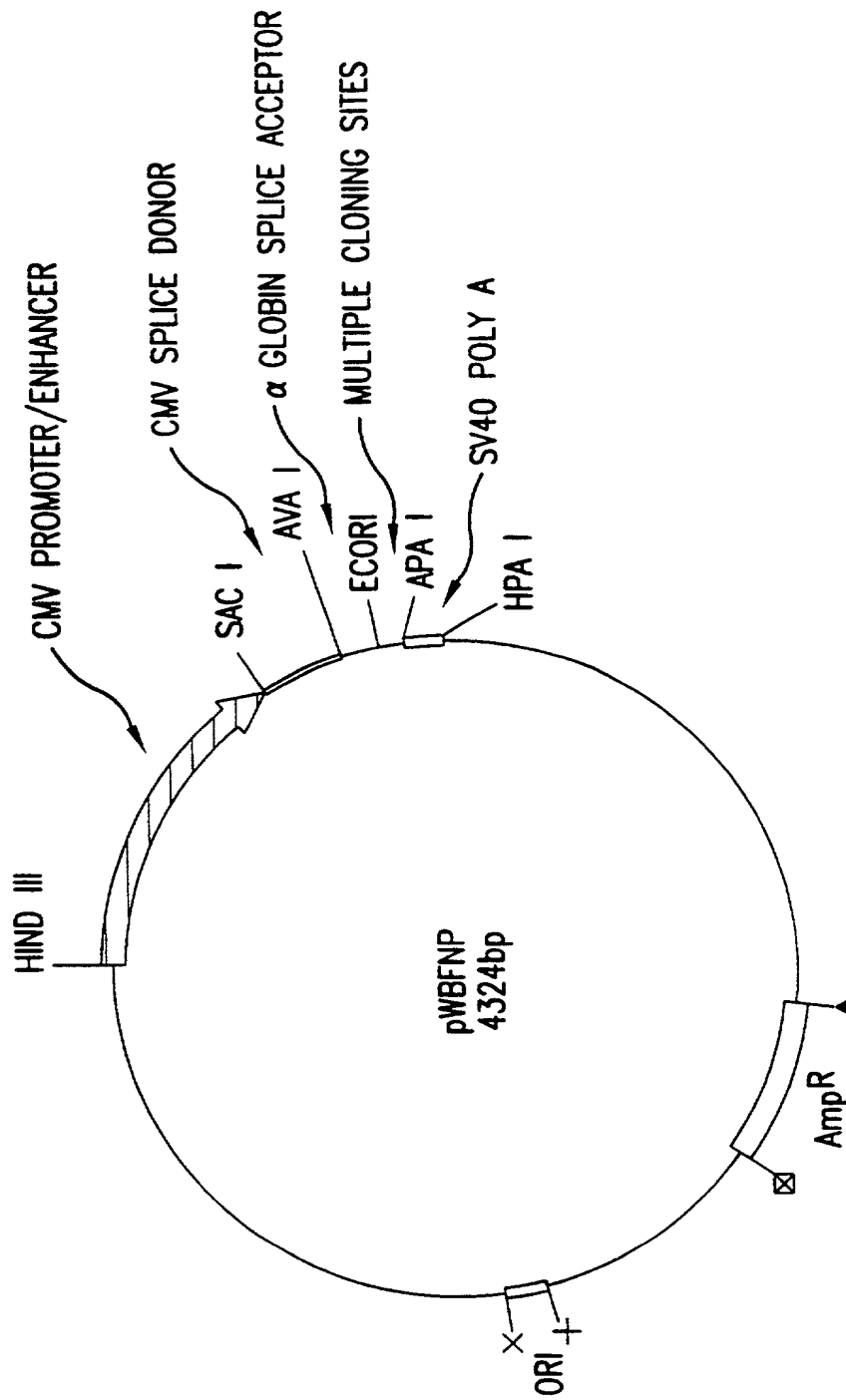


FIG.21

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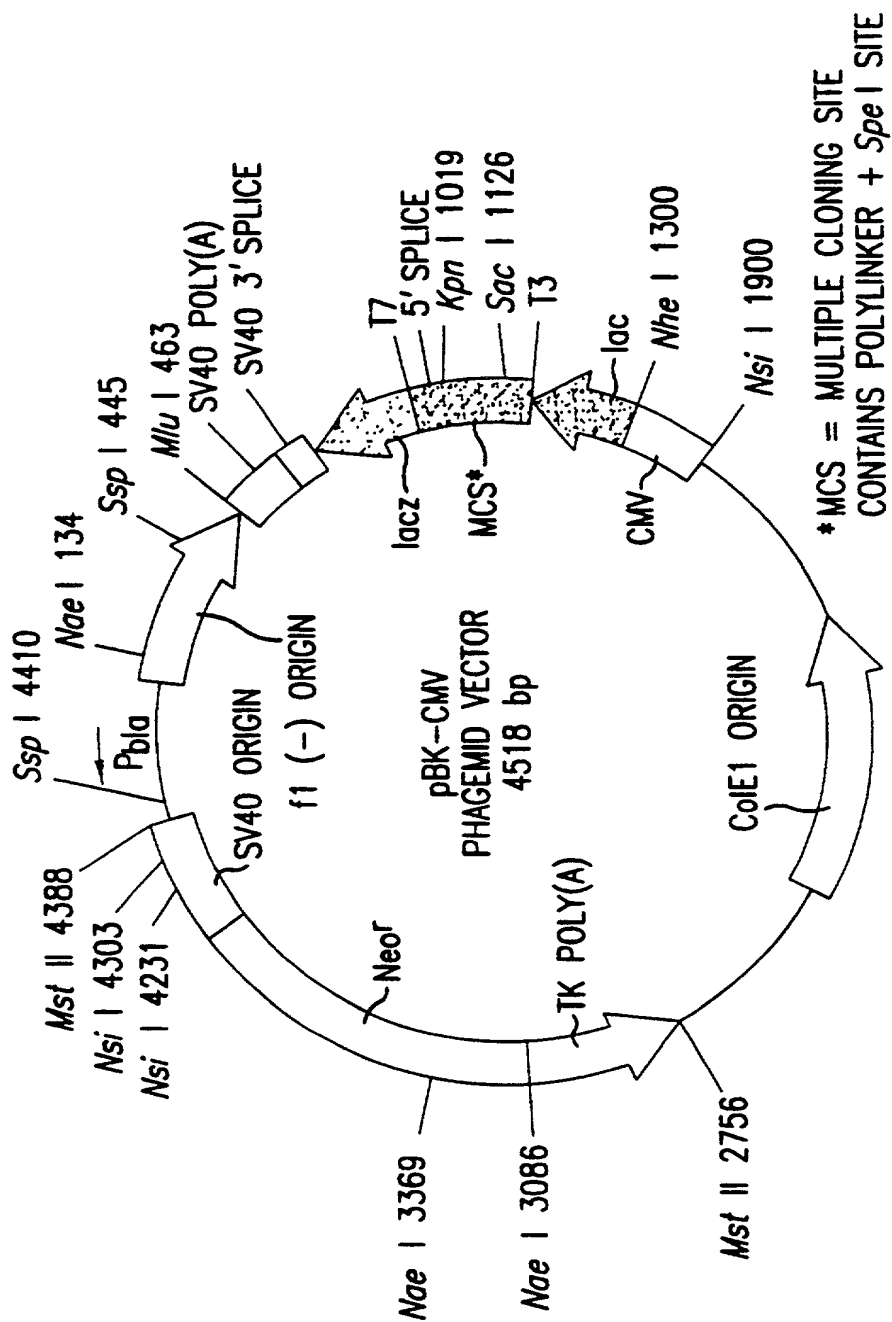


FIG.22

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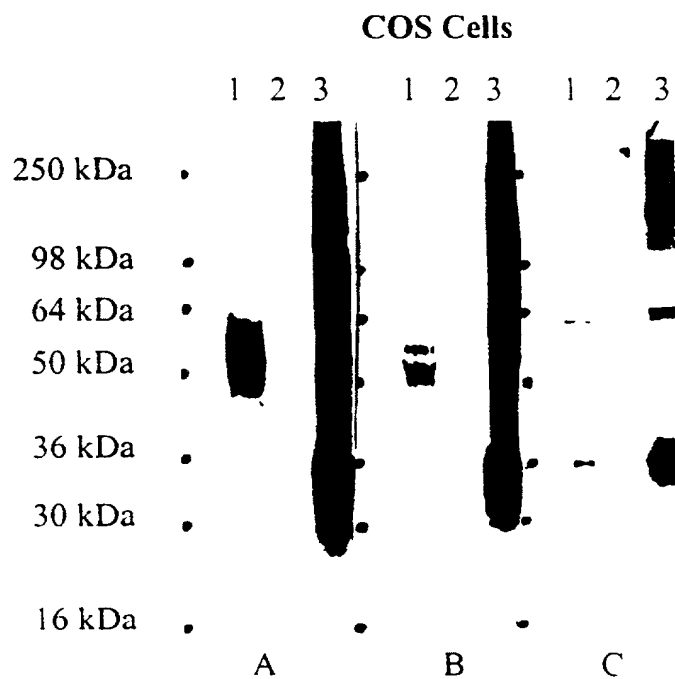


FIG.23A

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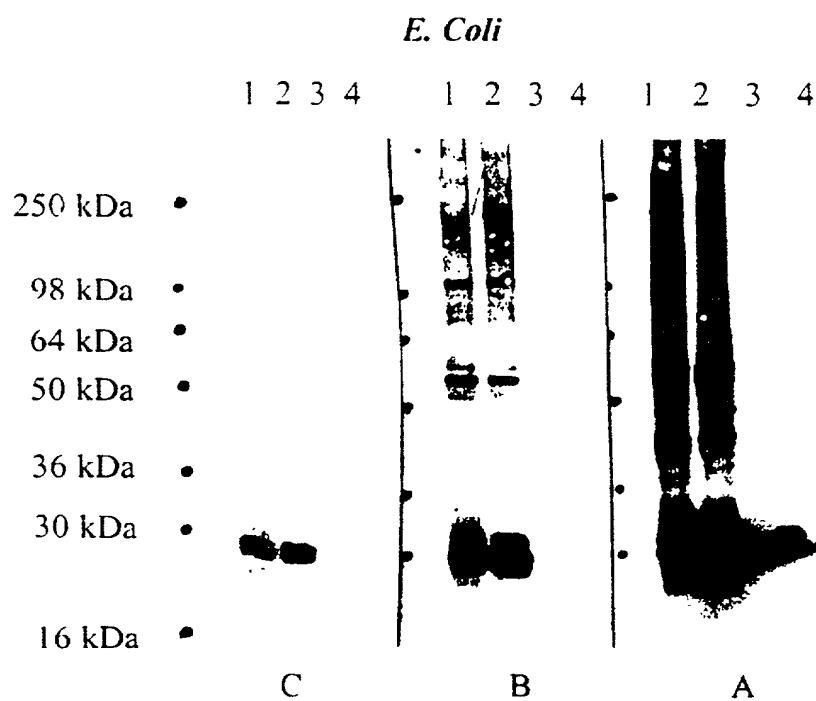


FIG.23B

IgM Antibody Sequences

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CEM 10.1 C3 Heavy cDNA

GGACTGTTGA	AGCCTTCGGA	GACCCTGTCC	CTCACCTGCG	CTGTCTATGG	50
TGGGTCCTTC	AGTGGTTACT	ACTGGAGCTG	GATCCGCCAG	CCCCCAGGGA	100
AGGGGCTGGA	GTGGATTGGG	GAAATCAATC	ATAGTGGAAG	CACCAACTAC	150
AACCCGTCCC	TCAAGAGTCG	AGTCACCATA	TCAGTAGACA	CGTCCAAGAA	200
CCAGTTCTCC	CTGAAGCTGA	GCTCTGTGAC	CGCNGCGGAC	ACGGCTGTGT	250
ATTACTGTGC	GAGAGGCACT	ACGGAATATT	ACTACTACTA	CTACGGTATG	300
GACGTCTGGG	GCCAAGGGAC	CACGGTCACC	GTCTCCTCAG	GGAGTGCATC	350
CGCCCCAACC	CTTTTCCCCC	TCGTCTCCTG	TGAGAATTCC	CCGTCGGATA	400
CGAGCAGCGT	GGCCGTTGGC	TGCCTCGCAC	AGGACTTCCT	TCCCGACTYC	450
ATCACTTTCT	CCTGGAAATA	CAAGAACAAC	TCTGACATCA	GCAGCACCCG	500
GGGCTTCCCA	TCAGTCCTGA	GAGGGGGCAA	GTACGCAGCC	ACCTCACAGG	550
TGCTGCTGCC	TTCCAAGGAC	GTCATGCAGG	GCACAGACGA	ACACGTGGTG	600
ACGGGATCCA	AAGAGTA				617

(SEQ ID NO:62)

CEM 10.1 C3 Heavy Protein

GLLKPSETLS	LTCVYGGSF	SGYYWSWIRQ	PPGKLEWIG	EINHSGSTNY	50
NPSLKSRTVI	SVDTSKNQFS	LKLSSVTAAD	TAVYYCARGT	TEYYYYYYGM	100
DVWGQGTTVT	VSSGSASAPT	LFPLVSCENS	PSDTSSVAVG	CLAQDFLPDX	150
ITFSWKYKNN	SDISSTRGFP	SVLRGGKYAA	TSQVLLPSKD	VMQGTDEHVV	200
TGSKE					205

(SEQ ID NO:23)

CEM 10.1 C3 Kappa cDNA

CTCTCCCTGC	CCGTCACCCC	TGGAGAGCCG	GCCTCCATCT	CCTGCAGGTC	50
TAGTCAGAGC	CTCCTGCATA	GTAATGGATA	CAACTATTTG	GATTGGTACC	100
TGCAGAAGCC	AGGGCAGTCT	CCACAGCTCC	TGATCTATTT	GGGTCTAAT	150
CGGGCCTCCG	GGGTCCCTGA	CAGGTTCACT	GGCAGTGGAT	CAGGCACAGA	200
TTTTACACTG	AAAATCAGCA	GAGTGGAGGC	TGAGGATGTT	GGGATTTATT	250
ACTGCATGCA	GACTCGACAA	ACTCCTCGGA	CGTTCGGCCA	AGGGACCAAG	300
GTGGAAATCA	AACGAACTGT	GGCTGCACCA	TCTGTCTTCA	TCTTCCC GCC	350
ATCTGATGAG	CAGTTGAAAT	CTGGAAGTGC	CTCTGTTGTG	TGCCTGCTGA	400
ATAACTTCTA	TCCCAGAGAG	GCCAAAGAGC	ATCAAAAGAG	TCCA	444

(SEQ ID NO:63)

CEM 10.1 C3 Kappa Protein

LSLPVTPGEP	ASISCRSSQS	LLHSNGYNYL	DWYLQKPGQS	PQLLIYLGSN	50
RASGVDPDRFS	GSGSGTDFTL	KISRVEAEDV	GIYYCMQTRQ	TPRTFGQGTK	100
VEIKRTVAAP	SVFIFPPSDE	QLKSGTASVV	CLLNNFYPRE	AKEHQKSP	148

(SEQ ID NO:24)

FIG. 24

IgM Antibody Sequences

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CEM 10.1 G10 Heavy cDNA

CTGGTGAAGC	CTTCGGAGAC	CCTGTCCCTC	ACCTGCACTG	TCTCTGGTGG	50
CTCCATCAGT	AGTTACTACT	GGAAGTGGAT	CCGGCAGCCC	CCAGGGAAGG	100
GACTGGAGTG	GATTGGGTAT	ATCTATTACA	GTGGGAGCAC	CAACTACAAC	150
CCCTCCCTCA	AGAGTCGAGT	CACCATATCA	GTAGACACGT	CCAAGAACCA	200
GTTCTCCCTG	AAGCTGAGCT	CTGTGACCGC	TGCGGACACG	GCCGTGTATT	250
ACTGTGCGAG	AGATAGGGGA	GTGGGAGCTA	CTGGTTTTGA	CTACTGGGGC	300
CAGGGAACCC	TGGTCACCGT	CTCCTCAGGG	AGTGCATCCG	CCCCAACCCCT	350
TTTCCCCCTC	GTCTCCTGTG	AGAATTCCCC	GTCGGATACG	AGCAGCGTGG	400
CCGTTGGCTG	CCTCGCACAG	GACTTCCTTC	CCGACTCCAT	CACTTTCTCC	450
TGGAAATACA	AGAACAACCTC	TGACATCAGC	AGCACCCGGG	GCTTCCCATC	500
AGTCCTGAGA	GGGGGCAAGT	ACGCAGCCAC	CTCACAGGTG	CTGCTGCCTT	550
CCAAGGACGT	CATGCAGGGC	ACAGACGAAC	ACAAGGTGTG	CGA	593

(SEQ ID NO:64)

CEM 10.1 G10 Heavy Protein

LVKPSETLSL	TCTVSGGSIS	SYYNWIRQP	PGKGLEWIGY	IYYSGSTNYN	50
PSLKSRTVIS	VDTSKNQFSL	KLSSVTAADT	AVYYCARDRG	VGATGFDYWG	100
QGTLLTVSSG	SASAPTLFPL	VSCENSPTS	SSVAVGCLAQ	DFLPDSITFS	150
WKYKNNSDIS	STRGFPSVLR	GGKYAATSQV	LLPSKDVMQG	TDEHKVC	197

(SEQ ID NO:25)

CEM 10.1 G10 Kappa cDNA

AGCCAGTCTC	CATCCTCCCT	GTCTGCATCT	GTAGGAGAGA	GAGTCACCAT	50
CACTTGCCGG	GCAAGTCAGG	GCATTAGAGA	TGAATTAGGC	TGGTATCAGC	100
AGAAACCAGG	GAAAGCCCCT	AAGCGCCTGA	TCTATGTTGC	ATCCAGTTTG	150
CAAAGTGGGG	TCCCATCAAG	G TTCAGCGGC	AGTGGATCTG	GGACAGAATT	200
CACTCTCACA	ATCAGCAGCC	TGCAGCCTGA	AGATTTTGCA	ACTTATTACT	250
GTCTACAGCA	TAATGGTTAC	CCTCGGACGT	TCGGCCAAGG	GACCAAGGTG	300
GAAATCAAAC	GAAGTGTGGC	TGCACCATCT	GTCTTCATCT	TCCCGCCATC	350
TGATGAGCAG	TTGAAATCTG	GAAGTGCCTC	TGTTGTGTGC	CTGCTGAATA	400
ACTTCTATCC	CAGAGAGGCC	AAAGAGCATC	AAAAGAGTCC	A	441

(SEQ ID NO:65)

CEM 10.1 G10 Kappa Protein

SQSPSSLSAS	VGERVTITCR	ASQGIRDELG	WYQOKPGKAP	KRLIYVASSL	50
QSGVPSRFSG	SGSGTEFTLT	ISSLPEDFA	TYYCLQHNGY	PRTEGQGTKV	100
EIKRTVAAPS	VFIFPPSDEQ	LKSGTASVVC	LLNNFYPREA	KEHQKSP	147

(SEQ ID NO:26)

FIG. 25

IgM Antibody Sequences

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CEM 10.12 F3 Heavy cDNA

AAGAAGCCTG	GGGCCTCAGT	GAAGGTCTCC	TGCAAGGCTT	CTGGATACAC	50
CTTCACCAGT	TATGATATCA	ACTGGGTGCG	ACAGGCCACT	GGACAAGGGC	100
TTGAGTGGAT	GGGATGGATG	AACCCCTAACA	GTGGTAACAC	AGGCTATGCA	150
CAGAAGTTCC	AGGGCAGAGT	CACCATGAAC	AGGAACACCT	CCATAAGCAC	200
AGCCTACATG	GAGCTGAGCA	GCCTGAGATC	TGAGGACACG	GCCGTGTATT	250
ACTGTGCGAG	AGGGGGTCAT	GGTGGGAGCT	ACTTCTACTC	CTAYTACGGT	300
ATGGACGTCT	GGGGCCAGGG	GACCACGGTC	ACCGTCTCCT	CAGGGAGTGC	350
ATCCGCCCCA	ACCCTTTTCC	CCCTCGTCTC	CTGTGAGAAT	TCCCCGTCGG	400
ATACGAGCAG	CGTGGCCGTT	GGCTGCCTCG	CACAGGACTT	CCTTCCCAGC	450
TCCATCACTT	TCTCCTGGAA	ATACAAGAAC	AACTCTGACA	TCAGCAGCAC	500
CCGGGGCTTC	CCATCAGTCC	TGAGAGGGGG	CAAGTACGCA	GCCACCTCAC	550
AGGTGCTGCT	GCCTTCCAAG	GACGTCATGC	AGGGCACAGA	CGAACACGTG	600
GTGTGCAAA					610

(SEQ ID NO:66)

CEM 10.12 F3 Heavy Protein

KKPGASVKVS	CKASGYTFTS	YDINWVRQAT	GQGLEWMGWM	NPNSGNTGYA	50
QKFQGRVTMN	RNTSISTAYM	ELSSLRSED	AVYYCARGGH	GGSYFYSYYG	100
MDVWGQGTTV	TVSSGSASAP	TLFPLVSCEN	SPSDTSSVAV	GCLAQDFLPD	150
SITFSWKYKN	NSDISSTRGF	PSVLRGGKYA	ATSQVLLPSK	DVMQGTDEHV	200
VCK					203

(SEQ ID NO:27)

CEM 10.12 F3 Kappa cDNA

CACTCCCTGG	CTGTGTCTCT	GGGCGAGAGG	GCCACCATCA	ACTGCAAGTC	50
CAGCCAGAGT	GTTTTATACA	GTTTTAACAA	TAAGAACTAC	TTAGCTTGGT	100
ACCAGCAGAA	ACCAGGACAG	CCTCCTAAGC	TGCTCATTTA	CTGGGCATCT	150
ACCCGGGAAT	CCGGGGTCCC	TGACCGATT	GGTGGCAGCG	GGTCTGGGAC	200
AGATTTCACT	CTCACCATCA	GCAGCCTGCA	GGCTGAAGAT	GTGGCAGTTT	250
ATTACTGTCA	GCAATATTAT	AGTACTCCTM	GGACGTTTCGG	CCAAGGGACC	300
AAGGTGGAAA	TCAAACGAAC	TGTGGCTGCA	CCATCTGTCT	TCATCTTCCC	350
GCCATCTGAT	GAGCAGTTGA	AATCTGGAAC	TGCCTCTGTT	GTGTGCCTGC	400
TGAATAACTT	CTATCCCAGA	GAGGCCAAAG	AGCATCAAAA	GAGTCCA	447

(SEQ ID NO:67)

CEM 10.12 F3 Kappa Protein

HSLAVSLGER	ATINCKSSQS	VLYSFNNKNY	LAWYQQKPGQ	PPKLLIYWAS	50
TRESGVPDFR	GGSGSGTDF	LTISLQAED	VAVYYCQQYY	STPRTFGQGT	100
KVEIKRTVAA	PSVFIFPPSD	EQLKSGTASV	VCLLNIFYPR	EAKEHQKSP	149

(SEQ ID NO:28)

FIG. 26

SUBSTITUTE SHEET (RULE 26)

FIG. 26 "05648260"

IgM Antibody Sequences

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CEM 10.12 G5 Heavy

GAGGTGAAGA	AGCCTGGGGC	CTCAGTGAAG	GTCTCCTGCA	AGGCTTCTGG	50
ATACACCTTC	ACCAGTTATG	ATATCAACTG	GGTGCGACAG	GCCACTGGAC	100
AAGGGCTTGA	GTGGATGGGA	TGGATGAACC	CTAACAGTGG	TAACACAGGC	150
TATGCACAGA	AGTTCCAGGG	CAGAGTCACC	ATGACCAGGA	ACACCTCCAT	200
AAGCACAGCC	TACATGGAGC	TGAGCAGCCT	GAGATCTGAG	GACACGGCCG	250
TGTATTACTG	TGCGAGAGAG	GAGTGGCTGG	TACGTTACTA	CGGTATGGAC	300
GTCTGGGGCC	AAGGGACCAC	GGTCACCGTC	TCCTCAGGGA	GTGCATCCGC	350
CCCAACCCTT	TTCCCCCTCG	TCTCCTGTGA	GAATTCCTCC	TCGGATACGA	400
GCAGCGTGGC	CGTTGGCTGC	CTCGCACAGG	ACTTCCTTCC	CGACTCCATC	450
ACTTTCTCCT	GGAAATACAA	GAACAACTCT	GACATCAGCA	GCACCCGGGG	500
CTTCCCATCA	GTCCTGAGAG	GGGGCAAGTA	CGCAGCCACC	TCACAGGTGC	550
TGCTGCCTTC	CAAGGACGTC	ATGCAGGGCA	CAGACGAACA	CAAGGTGTG	599

(SEQ ID NO:68)

CEM 10.12 G5 Heavy Protein

EVKKPGASVK	VCKASGYTF	TSYDINWVRQ	ATGQGLEWMG	WMNPNSGNTG	50
YAQKFQGRVT	MTRNTSISTA	YMELSSLRSE	DTAVYYCARE	EWLVRYGMD	100
VWGQGTITVTV	SSGSASAPTL	FPLVSCENSP	SDTSSVAVGC	LAQDFLPDSI	150
TFSWKYKNNS	DISSTRGFPS	VLGGKYAAT	SQVLLPSKDV	MQGTDEHKV	199

(SEQ ID NO:29)

CEM 10.12 G5 Kappa cDna

GGCCAGTCTC	CATCCTCCCT	GTCTGCATCT	GTAGGAGACA	GAGTCACCAT	50
CACTTGCCGG	GCAAGTCAGG	ACATTAGAGA	TAATTTAGGC	TGGTATCAGC	100
AGAAACCAGG	GAAAGCCCCCT	AAGCGCCTGA	TCTATGCTGC	ATCCAATTTG	150
CAAAGTGGGG	TCCCATCAAG	GTTCAGCGGC	AGTGGATCTG	GGACAGAATT	200
CACTCTCACA	ATCAGCAGCC	TGCAGCCTGA	AGATTTTGCA	ACTTATTACT	250
GTCTACAGTA	TAAAACTTAC	CCGTGGACGT	TCGGCCAAGG	GACCAAGGTG	300
GAAATCAAAC	GAAGTGTGGC	TGCACCATCT	GTCTTCATCT	TCCCGCCATC	350
TGATGAGCAG	TTGAAATCTG	GAAGTGCCTC	TGTTGTGTGC	CTGCTGAATA	400
ACTTCTATCC	CAGAGAGGMC	AAAGAGCATC	AAAAGAGTCC	A	441

(SEQ ID NO:69)

CEM 10.12 G5 Kappa Protein

GQSPSSLSAS	VGDRVITICR	ASQDIRDNLG	WYQOKPGKAP	KRLIYAASNL	50
QSGVPSRFSG	SGSGTEFTLT	ISSLPEDFA	TYYCLQYKTY	PWTFGQGTKV	100
EIKRTVAAPS	VFIFPPSDEQ	LKSGTASVVC	LLNNFYPREX	KEHQKSP	147

(SEQ ID NO:30)

FIG. 27

IgM Antibody Sequences

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CEM 13.12 Heavy cDNA

AAGCTTCCGG	AGACCCTGTC	CCTCACCTGC	GCTGTCTATG	GTGGGTCCTT	50
CAGTGGTTAC	TACTGGAGCT	GGATCCGCCA	GCCCCCAGGG	AAGGGGCTGG	100
AGTGGATTGG	GGAAATCAAT	CATAGTGGAA	GCACCAACTA	CAACCCGTCC	150
CTCAAGAGTC	GAGTCACCAT	ATCAGTAGAC	ACGTCCAAGA	ACCAGTTCTC	200
CCTGAAGCTG	AGCTCTGTGA	CCGCCGCGGA	CACGGCTGTG	TATTACTGTG	250
CGAGAGGGGC	AGCTGAATAT	TACTACTACT	ACTACGGTAT	GGACGTCTGG	300
GGCCAAGGGA	CCACGGTCAC	CGTCTCCTCA	GGGAGTGCAT	CCGCCCCAAC	350
CCTTTTCCCC	CTCGTCTCCT	GTGAGAATTC	CCCGTCGGAT	ACGAGCAGCG	400
TGGCCGTTGG	CTGCCTCGCA	CAGGACTTCC	TTCCCGACTY	CATCACTTTC	450
TYCTGGAAAT	ACAAGAACAA	CTCTGACATC	AGCAGCACCC	GGGGCTTCCC	500
ATCAGTCCTG	AGAGGGGGCA	AGTACGCAGC	CACCTCACAG	GTGCTGCTGC	550
CTTCCAAGGA	CGTCATGCAG	GGCACAGACG	AACACGTGGT	GACGGGATCC	600
AAAGAGT					607

(SEQ ID NO:70)

CEM 13.12 Heavy Protein

KLPETLSLTC	AVYGGSFSGY	YWSWIRQPPG	KGLEWIGEIN	HSGSTNYPNS	50
LKSRVTISVD	TSKNQFSLKL	SSVTAADTAV	YYCARGAAEY	YYYYYGMDVW	100
GQGTTVTVSS	GSASAPTLFP	LVSCENSPSD	TSSVAVGCLA	QDFLPDXITF	150
XWKYKNNSDI	SSTRGFPSVL	RGKYAATSQ	VLLPSKDVMQ	GTDEHVVTGS	200
KE					202

(SEQ ID NO:31)

CEM 13.12 Kappa cDNA

ATGCCCCGTC	CCCCTGGAGA	GCCGGCCTCC	ATCTCCTGCA	GGTCTAGTCA	50
GAGCCTCCTG	CATAGTAATG	GATACAACTA	TTTGGACTGG	TACCTGCAGA	100
AGCCAGGGCA	GTCTCCACAG	CTCCTGATCT	ATTTGGGTTC	TAATCGGGCC	150
TCCGGGGTCC	CTGACAGGTT	CAGTGGCAGT	GGATCAGGCA	CAGATTTTAC	200
ACTGAAAATC	AGCAGAGTGG	AGGCTGAGGA	TGTTGGGATT	TATTACTGCA	250
TGCAAAGTCT	ACAAATTCCC	CGGCTTTTCG	GCCCTGGGAC	CAAAGTGGAT	300
ATCAAACGAA	CTGTGGCTGC	ACCATCTGTC	TTCATCTTCC	CGCCATCTGA	350
TGAGCAGTTG	AAATCTGGAA	CTGCCTCTGT	TGTGTGCCTG	CTGAGTAACT	400
TCTATCCCAG	AGAGGCCAAA	GTACAGTGGA	A		431

(SEQ ID NO:71)

CEM 13.12 Kappa Protein

MPVTPGEPAS	ISCRSSQSLL	HSNGYNYLDW	YLQKPGQSPQ	LLIYLGSNRA	50
SGVPDRFSGS	SGGTDFTLKI	SRVEAEDVGI	YYCMQSLQIP	RLFGPGTKVD	100
IKRTVAAPSV	FIFPPSDEQL	KSGTASVVCL	LSNFYPREAK	VQW	143

(SEQ ID NO:32)

FIG. 28

SUBSTITUTE SHEET (RULE 28)

PCT/US99/04583/28

IgM Antibody Sequences

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CEM 13.5 Heavy cDNA

TCGGAGACCC	TGTCCCTCAC	CTGCGCTGTC	TATGGTGGGT	CCTTCAGTGG	50
TTACTACTGG	AGCTGGATCC	GCCAGCCCCC	AGGGAAGGGG	CTGGAGTGGA	100
TTGGGGAAAT	CAATCATAGT	GGAAGCACCA	ACTACAACCC	GTCCCTCAAG	150
AGTCGAGTCA	CCATATCAGT	AGACACGTCC	AAGAACCAGT	TCTCCCTGAA	200
GCTGAGTTCT	GTGACCGCCG	CGGACACGGC	TGTGTATTAC	TGTGCGAGAG	250
GCGGGACTAC	AGTAACTTTT	GATGCTTTTG	ATATCTGGGG	CCAAGGGACA	300
ATGGTCACCG	TCTCTTCAGG	GAGTGCATCC	GCCCCAACCC	TTTTCCCCCT	350
CGTCTCCTGT	GAGAATTCCC	CGTCGGATAC	GAGCAGCGTG	GCCGTTGGCT	400
GCCTCGCACA	GGACTTCCTT	CCCGACTCCA	TCACTTTCTC	CTGGAAATAC	450
AAGAACAAC	CTGACATCAG	CAGCACCCGG	GGCTTCCCAT	CAGTCCTGAG	500
AGGGGGCAAG	TACGCAGCCA	CCTCACAGGT	GCTGCTGCCT	TCCAAGGACG	550
TCATGCAGGG	CACAGACGAA				570

(SEQ ID NO:72)

CEM 13.5 Heavy Protein

SETLSLTCAV	YGGSFSGYYW	SWIRQPPGKG	LEWIGEINHS	GSTNYPNPSLK	50
SRVTISVDTS	KNQFSLKLSS	VTAADTAVYY	CARGGTTVTF	DAFDIWGQGT	100
MVTVSSGSAS	APTLFPLVSC	ENSPSDTSSV	AVGCLAQDFL	PDSITFSWKY	150
KNNSDISSTR	GFPSVLRGGK	YAATSQVLLP	SKDVMQGTDE		190

(SEQ ID NO:33)

CEM [15.5] Kappa cDNA

CTGGCTGTGT	CTCTGGGCGA	GAGGGCCACC	ATCAACTGCA	AGTCCAGCCA	50
GAGTGTTTTA	TACAGTTTTA	ACAATAAGAA	CTACTTAGCT	TGGTACCAGC	100
AGAAACCAGG	ACAGCCTCCT	AAGCTGCTCA	TTTACTGGGC	ATCTACCCGG	150
GAATCCGGGG	TCCCTGACCG	ATTCAGTGGC	AGCGGGTCTG	GGACAGATTT	200
CACTCTCACC	ATCAGCAGCC	TGCAGGCTGA	AGATGTGGCA	GTTTATTACT	250
GTCAGCAATA	TTATAGTACT	CCTCGGACGT	TCGGCCAAGG	GACCAAGGTG	300
GAAATCAAAC	GAACTGTGGC	TGCACCATCT	GTCTTCATCT	TCCCGCCATC	350
TGATGAGCAG	TTGAAATCTG	GAACTGCCTC	TGTTGTGTGC	CTGCTGAATA	400
ACTTCTATCC	CAGAGAGGCC	AAAGTACAGT	GGAAGGTGAT	C	441

(SEQ ID NO:73)

CEM 13.5 Kappa Protein

LAVSLGERAT	INCKSSQSVL	YSFNKNKYLA	WYQQKPGQPP	KLLIYWASTR	50
ESGVPDRFSG	SGSGTDFTLT	ISSLQAEDVA	VYYCQQYYST	PRTFGQGTKV	100
EIKRTVAAPS	VFIFPPSDEQ	LKSGTASVVC	LLNNFYPREA	KVQWKVI	147

(SEQ ID NO:34)

FIG. 29

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IgG Antibody Sequences2.4.4 Heavy cDNA

AACCCACAGA	CGACCCTCAC	GCTGACCTGC	ACCTTCTCTG	GGTTCTCACT	50
CATTACCCGT	GGAGTGGGTG	TGGATTGGAT	CCGTCAGCCC	CCAGGAAAGG	100
CCCTGCAGTG	GCTCGCACTC	ATTTATTGGA	ATGATGATAA	GCGCTACAGT	150
CCATCTCTGA	AGAGCAGGCT	CACCATCACC	AAGGACACCT	CCAAAAACCA	200
GGTGGTCCTC	ACAATGACCA	ACATGGACCC	TGTGGACACA	GCCACATATT	250
ACTGTGCACA	CCATTTCTTT	GATAGTAGTG	GTTATTACCC	TTTTGACTCC	300
TGGGGCCAGG	GAACCCTGGT	CTCCGTCTCC	TCAGCCTCCA	CCAAGGGCCC	350
ATCGGTCTTC	CCCCTGGCGC	CCTGCTCCAG	GAGCACCTCC	GAGAGCACAG	400
CGGCCCTGGG	CTGCCTGGTC	AAGGACTACT	TCCCCGAACC	GGTGACG	447

(SEQ ID NO:74)

2.4.4 Heavy Protein

NPQTTLTLTC	TFSGFSLITR	GVGVDWIRQP	PGKALQWLAL	IYWNDDKRYR	50
PSLKSRLTIT	KDTSKNQVVL	TMTNMDPVD	ATYYCAHHFF	DSSGYYPFDS	100
WGQGLVSVS	SASTKGPSVF	PLAPCSRSTS	ESTAALGCLV	KDYFPEPVT	149

(SEQ ID NO:35)

2.4.4 Kappa cDNA

GTGACTCAGT	CTCCACTCTC	TCTGTCCGTC	ACCCCTGGAC	AGCCGGCCTC	50
CATCTCCTGC	AAGTCTAGTC	AGAGCCTCCT	GCATAGTGAT	GGAAAGACCT	100
ATTTGTATTG	GTACCTGCAG	AAGCCAGGCC	AGCCTCCACA	GCTCCTGATC	150
TATGAAGCTT	TCAACCGGTT	CTCTGGAGTG	CCAGATAGGT	TCAGTGGCAG	200
CGGGTCAGGG	ACAGATTTC	CACTGAAAAT	CAGCCGGGTG	GAGGCTGAGG	250
ATGTTGGACT	TTATTATTGC	ATGCAAAGTA	TAGAGCTTCC	GTTCACTTTC	300
GGCGGAGGGA	CCAAGGTGGA	GATCAAACGA	ACTGTGGCTG	CACCATCTGT	350
CTTCATCTTC	CCGCCATCTG	ATGAGCAGTT	GAAATCTGGA	ACTGCCTCTG	400
TTGTGTGCCT	GCTGAATAAC	TTCTATCCCA	GAAAAGAAAG	AGTCR	445

(SEQ ID NO:75)

2.4.4 Kappa Protein

VTQSPLSLSV	TPGQPASISC	KSSQSLLHSD	GKTYLYWYLO	KPGQPPQLLI	50
YEAFNRFSGV	PDRFSGSGSG	TDFTLKISR	EAEDVGLYYC	MQSIELPFTF	100
GGGKVEIKR	TVAAPSVFIF	PPSDEQLKSG	TASVVCLLNN	FYPRKERV	148

(SEQ ID NO:36)

FIG. 30

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IgG Antibody Sequences2.1.1 Heavy cDNA

GGGGAAGGCC	TGGTCAAGCC	TGGGGGGTCC	CTGAGACTCT	CCTGTGCAGC	50
CTCTGGATTG	ACCTTCAGTA	GCTATAGCAT	GAAGTGGGTC	CGCCAGGCTC	100
CAGGGAAGGG	GCTGGAGTGG	GTCTCATCCA	TTAGTAGTAG	TAGTAGTTAC	150
ATATACTACG	CAGACTCAGT	GAAGGGCCGA	TTCACCATCT	CCAGAGACAA	200
CGCCAAGAAC	TCACTGTATC	TGCAAATGAA	CAGCCTGAGA	GCCGAGGACA	250
CGGCTGTGTA	TTACTGTGCG	AGGGATAGCA	GTGGCTGGTA	TGAGGACTAC	300
TTTGACTACT	GGGGCCAGGG	AACCCTGGTC	ACCGTCTCCT	CAGCCTCCAC	350
CAAGGGCCCA	TCGGTCTTCC	CCCTGGCGCC	CTGCTCCAGG	AGCACCTCCG	400
AGAGCACAGC	GGCCCTGGGC	TGCCTGGTCA	AGGACTACTT	CCCCGAACCG	450
GTGACGGTGT	CGTGGAATCT	AGGCGCTCTG	ACCAGCGGCG	TGCACACCTT	500
CCCAGCTGTC	CTACAGTCA				519

(SEQ ID NO:76)

2.1.1 Heavy Protein

GEGLVKPGGS	LRLSCAASGF	TFSSYSMNWV	RQAPGKGLEW	VSSISSSSSY	50
IYYADSVKGR	FTISRDNANK	SLYLQMNLSR	AEDTAVYYCA	RDSSGWYEDY	100
FDYWGQGTLV	TVSSASTKGP	SVFPLAPCSR	STSESTAALG	CLVKDYFPEP	150
VTVSWNSGAL	TSGVHTFPAV	LQS			173

(SEQ ID NO:37)

2.1.1 Kappa cDNA

CTTGACATCC	AGCTGACCCA	GTCTCCGTCC	TCACTGTCTG	CATCTGTAGG	50
AGACAGAGTC	ACCATCACTT	GTCGGGCGAG	TCAGGACATT	AGCATTTATT	100
TAGCCTGGTT	TCAGCAGAGA	CCAGGGAAAG	CCCCTAAGTC	CCTGATCTAT	150
GCTGCATCCA	GTTTGCAAAG	TGGGGTCCCA	TCAAAGTTCA	GCGGCAGTGG	200
ATCTGGGACA	GATTTCACTC	TCACCATCAG	CAGCCTGCAG	CCTGAAGATT	250
TTGCAACTTA	TTACTGCCAA	CAATATAATA	GTTATCCATT	CACTTTCGGG	300
CCC					303

(SEQ ID NO:77)

2.1.1 Kappa Protein

LDIQLTQSPS	SLSASVGDRV	TITCRASQDI	SIYLAWFQQR	PGKAPKSLIY	50
AASSLQSGVP	SKFSGSGSGT	DFTLTISLQ	PEDFATYYCQ	QYNSYPFTFG	100
P					101

(SEQ ID NO:38)

FIG. 31

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IgG Antibody Sequences**2.3.2 Heavy cDNA**

CTGACCTGCA	CCTTCTCTGG	GTTCTCACTC	ATTACCCGTG	GAGTGGGTGT	50
GGATTGGATC	CGTCAGCCCC	CAGGAAAGGC	CCTGCAGTGG	CTCGCACTCA	100
TTTATTGGAA	TGATGATAAG	CGCTACAGTC	CATCTCTGAA	GAGCAGGCTC	150
ACCATCACCA	AGGACACCTC	CAAAAACCAG	GTGGTCCTCA	CAATGACCAA	200
CATGGACCCT	GTGGACACAG	CCACATATTA	CTGTGCACAC	CATTTCTTTG	250
ATAGTAGTGG	TTATTACCCT	TTTGACTCCT	GGGGCCAGGG	AACCCTGGTC	300
TCCGTCTCCT	CAGCCTCCAC	CAAGGGCCCA	TCGGTCTTCC	CCCTGGCGCC	350
CTGCTCCAGG	AGCACCTCCG	AGAGCACAGC	GGCCCTGGGC	TGCCTGGTCA	400
AGGACTACTT	CCCCGAACCG	GTGACGGTGT	CGTGGAATC	AGGCGCTCTG	450
ACCAGCGGCG	TGCACACCTT	CCAGCTG			477

(SEQ ID NO:78)

2.3.2 Heavy Protein

LTCTFSGFSL	ITRGVGVDWI	RQPPGKALQW	LALIYWDDK	RYSPSLKSRL	50
TITKDTSKNQ	VVLMTNMDP	VDATYYCAH	HFFDSSGYYP	FDSWGQGLV	100
SVSSASTKGP	SVFPLAPCSR	STSESTAALG	CLVKDYFPEP	VTVSWNSGAL	150
TSGVHTFQL					159

(SEQ ID NO:39)

FIG. 32

IgG Antibody Sequences

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2.6.1 Heavy cDNA

GGGGGAGGCT	TGGTACAGCC	TGGGGGGGTCC	CTGAGACTCT	CCTGTGCAGC	50
CTCTGGATTG	ACTTTTAGCA	GCTATGCCAT	GAGCTGGGTC	CGCCAGGCTC	100
CAGGGAAGGG	GCTGGAGTGG	GTCTCAACTA	TTAGTGTTAG	TGGTATTACC	150
ACATACTACG	TAGACTCCGT	GAAGGGCCGG	TTCACCATCT	CCAGAGACAA	200
TTCCAAGAAC	ATTCTGTATC	TGCAAATGAA	CAGCCTGAGA	GCCGAGGACA	250
CGGCCGTATA	TTACTGTGCG	AAACGGATTT	TTGGAGTGGT	CTGGGGGCCAG	300
GGAACCCTGG	TCACCGTCTC	CTCAGCCTCC	ACCAAGGGCC	CATCGGTCTT	350
CCCCCTGGCG	CCCTGCTCCA	GGAGCACCTC	CGAGAGCACA	GCGGCCCTGG	400
GCTGCCTGGT	CAAGGACTAC	TTCCCCGAAC	CGGTGACGGT	GTCGTGGAAC	450
TTAGGCGCTC	TGACCAGCGG	CGTGACACACC	TTCCCAGCTG	TCCTACAGTC	500
CTA					503

(SEQ ID NO:79)

2.6.1 Heavy Protein

GGGLVQPGGS	LRLSCAASGF	TFSSYAMSWV	RQAPGKGLEW	VSTISVSGIT	50
TYVDSVKGR	FTISRDN SKN	ILYLQMN SLR	AEDTAVYYCA	KRIFGVVWGQ	100
GTLTVSSAS	TKGPSVFPLA	PCSRSTSEST	AALGCLVKDY	FPEPVTVSWN	150
LGALTSGVHT	FPAVLQS				167

(SEQ ID NO:40)

2.6.1 Kappa cDNA

GGAATTCGGC	TTGATATTCA	GCTGACTCAG	TCTCCATCCT	CACTGTCTGC	50
ATCTGTAGGA	GACAGAGTCA	CCATCACTTG	TCGGGCGAGT	CAGGGCATTG	100
GCATTTATTT	AGCCTGGTTT	CAGCAGAGAC	CAGGGAAAGC	CCCTAAGTCC	150
CTGATCTATG	CTGCATCCAG	TTTGCAAAGT	GGGGTCCCAT	CAAAGTTCAG	200
CGGCAGTGGA	TCTGGGACAG	ATTTCACCTCT	CACCATCAGC	AGCCTGCAGC	250
CTGAAGATTT	TGCAACTTAT	TACTGCCAAC	AATATAATAG	TTACCCATTC	300
ACTTTCGGCC	CTGGGACCAA	AGTGGATATC	AAACGAACTG	TGGCTGCACC	350
ATCTGTCTTC	ATCTTCCCGC	CATCTGATGA	GCAGTTGAAA	TCTGGAAGTG	400
CCTCTGTTGT	GTGCTTGCTG	AATAACTTCT	ATCCCAGAGA	GGCCAAAGTA	450
CAGTGGAAGG	TGGATAACGC	CCTCCAATCG	GGTAAGCCGA	ATTC	494

(SEQ ID NO:80)

2.6.1 Kappa Protein

GIRLDIQLTQ	SPSSLSASVG	DRVITTCRAS	QGISIYLAWF	QQRPGKAPKS	50
LIYAASSLQS	GVPSKFSGSG	SGTDFTLTIS	SLQPEDFATY	YCQQYNSYPF	100
TFGPGTKVDI	KRTVAAPSVF	IFPPSDEQLK	SGTASVVCLL	NNFYPPREAKV	150
QWKVDNALQS	GKPN				164

(SEQ ID NO:41)

FIG. 33

SUBSTITUTE SHEET (RULE 26)

P05120 05648660

CEM 10.1 G10 Heavy Protein

LVKPSETLSLTCTVSGGSISSYYWNWIRQPPKGLEWIGIYYSGSTNYPNPKLSRVTIISVDTSKNQFSL
CDR1 CDR2
KLSSVTAADTAVYYCARDRGVATGFDYWGQGLVTVSSGSASAPTLFPLVSCENSPDTSSTVAVGCLAQ
CDR3
DFLPDSITFSWKYKNNSDISSTRGFPSVLRGGKYAATSQVLLPSKDVMQGTDEHKVC

CEM 10.1 G10 Kappa Protein

SQSPSSLSASVGERVTITCRASQGI^{CDR1}RDELGWYQQKPGKAPKRLIYVASSLQSGVPSRFRSGSGSGTEFTLT
 ISSLQPEDFATYYCLQHNGYPRTEFGQTKVEIKRTVAAPSVEIFPPSDEQLKSGTASVWCLLNNFYPREA
 KEHQKSP^{CDR3}

FIG. 35

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IgM Antibody SequencesCEM 10.12 F3 Heavy Protein

KKPGASVKVSCKASGYTETSYDINWVRQATGQGLEWMGMNPN SGNTGYAQKFQGRVTMNRNTSISTAYM
CDR1
ELSSLRSEDTAVYYCARGGHGGSYFYSGMDVWGQTTVTVSSGSASAPTLFPLVSCENSPSDTSSVAV
CDR3
GCLAQDFLPDSITFSWKYKNNSDISSTRGFPSVLRGGKYAATSQVLLPSKDVMOGTDEHVVCK

CEM 10.12 F3 Kappa Protein

HSLAVSLGERATINCKSSQSVLYSFNNKNYLAWYQQKPGQPKLLIYWASTRESGVDPDRFGGSGSGTDFT
CDR1
LTISSLQAEDVAVYYCQYYSTPRTFGQGTKEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNEYPR
CDR3
EAKEHQKSP

FIG. 36

CEM 10.12 G5 Heavy Protein

EVKKPGASVKVSCKASGYTFTSYDINWVRQATGQGLEWMGWMNPNSGNTGYAQKFQGRVTMTNRTSISTA
 CDR1 CDR2
 YMELSSLRSEDIAVYYCAREEWLVRYYGMDVWGQGT'TVTVSSGASAPTLFPLVSCENSPSDTSSVAVGC
 CDR3
 LAQDFLPDSITFSWKYKNNSDISSTRGFPSVLRGKYAATSQVLLPSKDVMOGTDEHKV

CEM 10.12 G5 Kappa Protein

GQSPSSLASVGDRVITCRASQDIRDNLGWYQQKPGKAPKRLIYAASNLSGVPSPRFSGGSGGTFTLT
CDR1 CDR2

ISSLQPEDFATYYCLQKYTPWTFQGQTKVEIKRTVAAPSVEIFPPSDEQLKSGTASVVCLLNNFYPREX
CDR3

KEHQKSP

FIG. 37

CEM 13.5 Heavy Protein

SETLSLTCAVYGGSFSGYYMSWIRQPPGKGLEWIGEINHSGSTNYP^{CDR1}SLKSRVTISVDTSKNQFSLKLSS
VTAADTAVYYCARGGTTVT^{CDR2}EDAFDIWGQGTMTVSSGSAAPTLPPLVSCENS?SDTSSVAVGCLAQDFL
PDSITFSWKYKNNSDISSTRGFP^{CDR3}SVLRGGKYAATSQVLLPSPKDV^{CDR3}MQGTDE

CEM 13.5 Kappa Protein

LAVSLGERATINCKSSQSVLYSFNNKNYLAWYQQKPQGPPKLLIYWASTRESGVDPDRFSGSGGTDFTLT
CDR1 CDR2
ISSLQAEDVAVYCQYYSTPRTEFGGTKEIKRTVAAPSVFIEPSPDEQLKSGTASVVCLLNFFYPREA
CDR3
KVQWKVI

FIG. 39

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IgG Antibody Sequences2.4.4 Heavy Protein

NPQTTLTCTFSGESLITRGVGV^{CDR1}DI^{CDR2}RQPPGKALQWLAL^{CDR2}IYWDDKRYSPSLKSR^{CDR2}LTITKDTSKNQVVL
 TMTNMDPVD^{CDR3}TATYYCAH^{CDR3}HEFDSSGGYYPEDSWGQGLVSVSSASTKGPSVFPLAPCSRSTSESTAALGCLV
 KDYFPEPVT

2.4.4 Kappa Protein

VTQSP^{CDR1}LSL^{CDR1}SVTPGQPASISCKSSQSL^{CDR1}LHSDGKTYLYWLQKPGQP^{CDR2}QLLIYEAFNREFSGVPDRFSGSGSG
 TDFTL^{CDR3}KISRVEADVGLYYCMQSI^{CDR3}ELPFTFGGGKVEIKRTVAAPSVFI^{CDR3}FPSPDEQLKSGTASVVCLLNN
 FYPRKERV

FIG. 40

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IgG Antibody Sequences2.3.2 Heavy Protein

LTCTFSGFSLITRGVGVDWIRQPPGKALQWLALIYWDDKRYSPSLKSRLLITKDTSKNQVVLTMNMDP
CDR1
VDTATYYCAHHEFDSSGYYPPFDSWGQGLVSVSSASTKGPSVFFLAPCSRSTSESTAALGCLVKDYFPEP
CDR2
CDR3
VTVSWNSGALTSGVHTFQL

2.3.2 Kappa Protein

FIG. 42

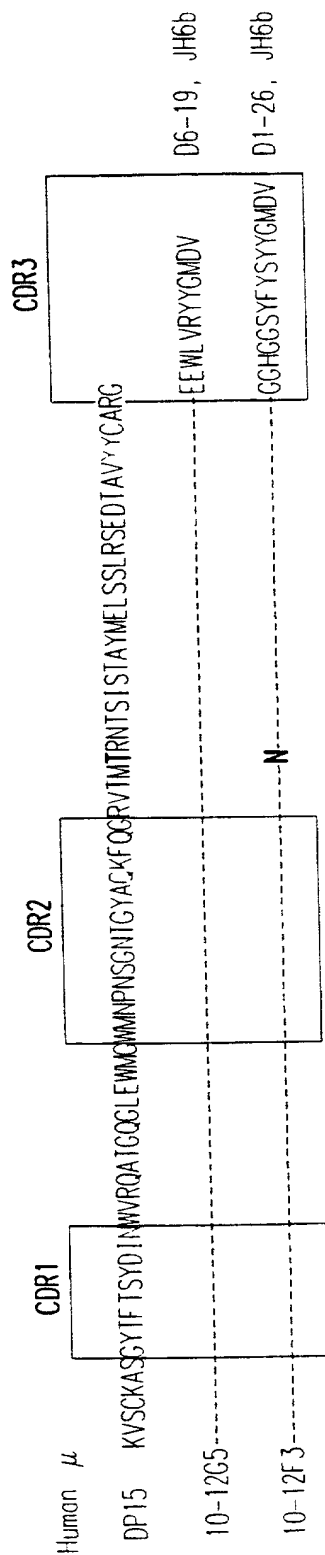


FIG. 44A

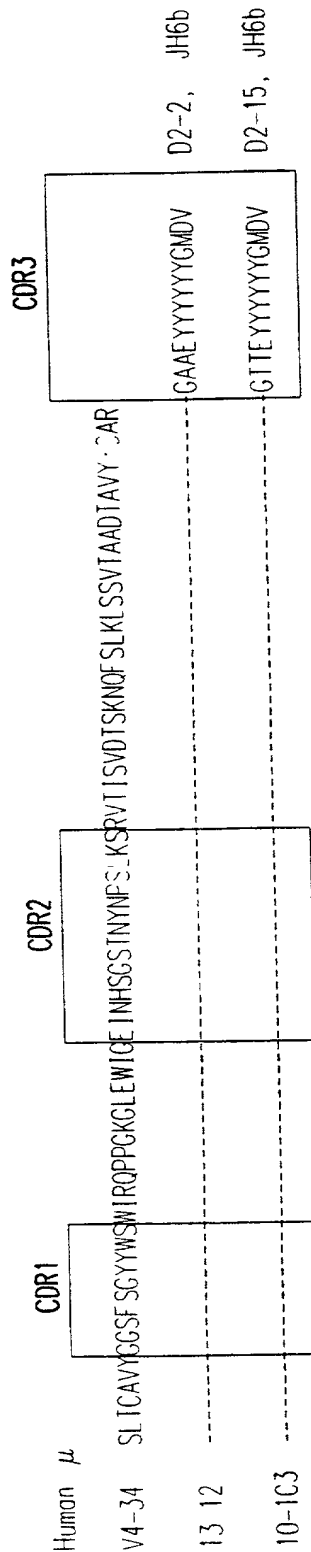


FIG. 44B

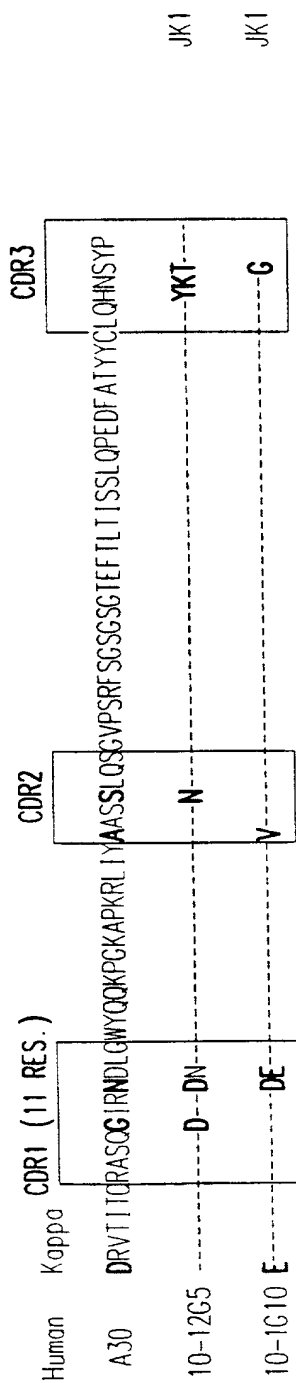


FIG. 45A

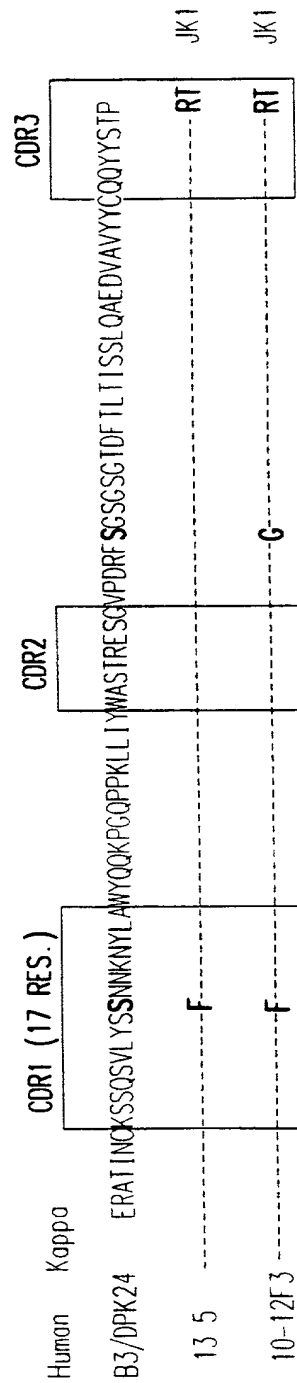


FIG. 45B

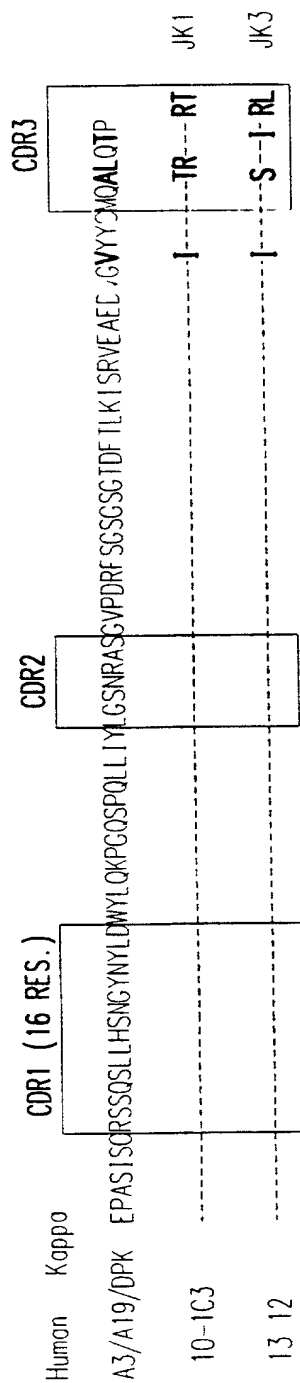


FIG. 45C

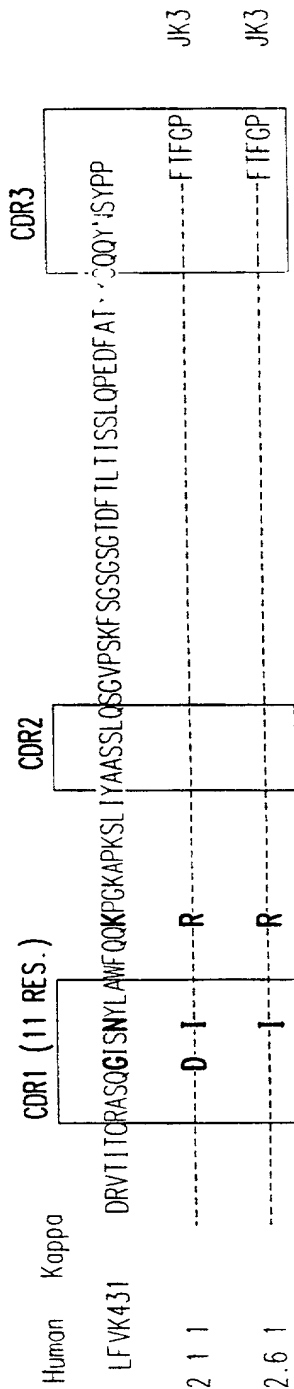


FIG. 46

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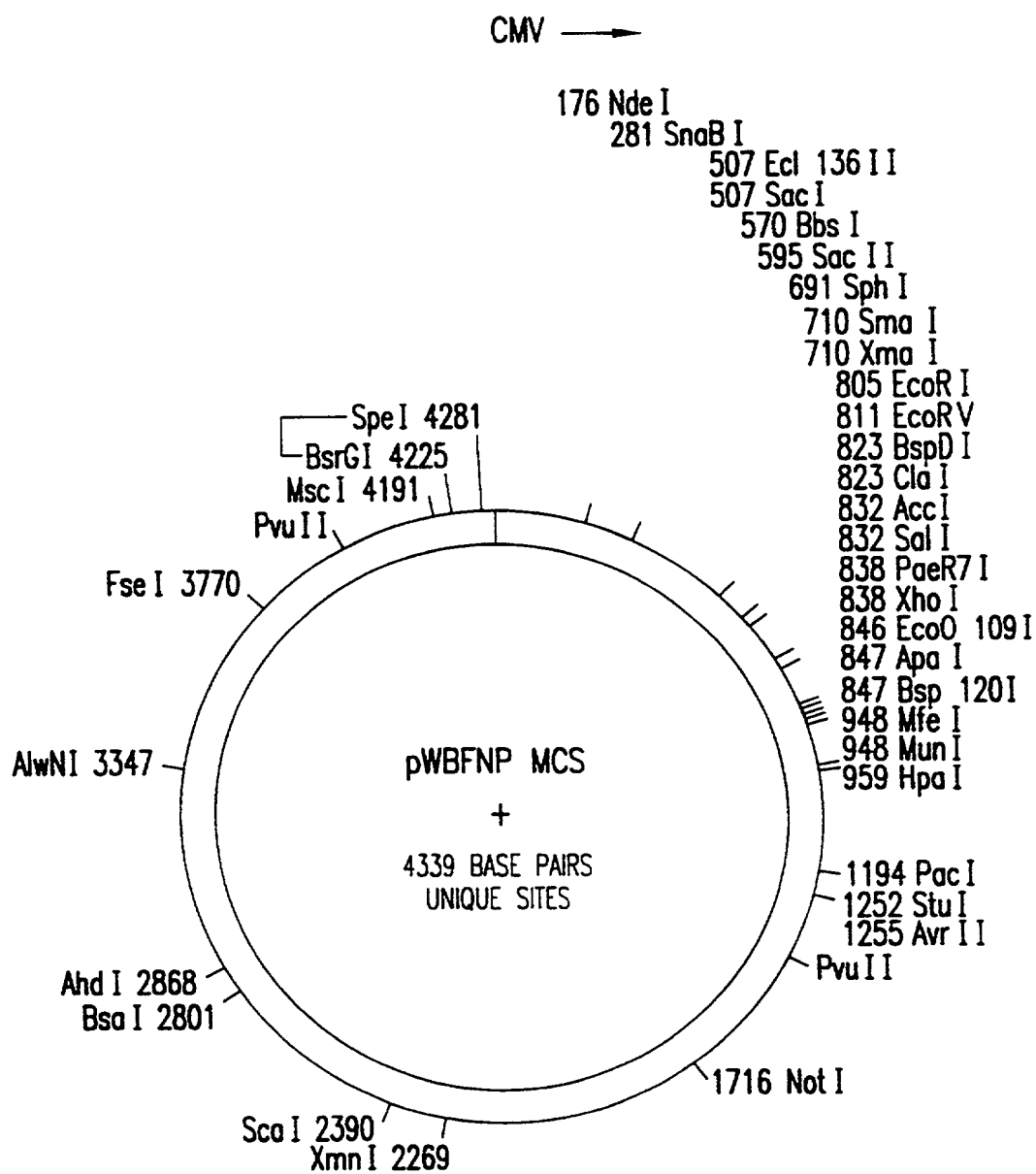


FIG. 47

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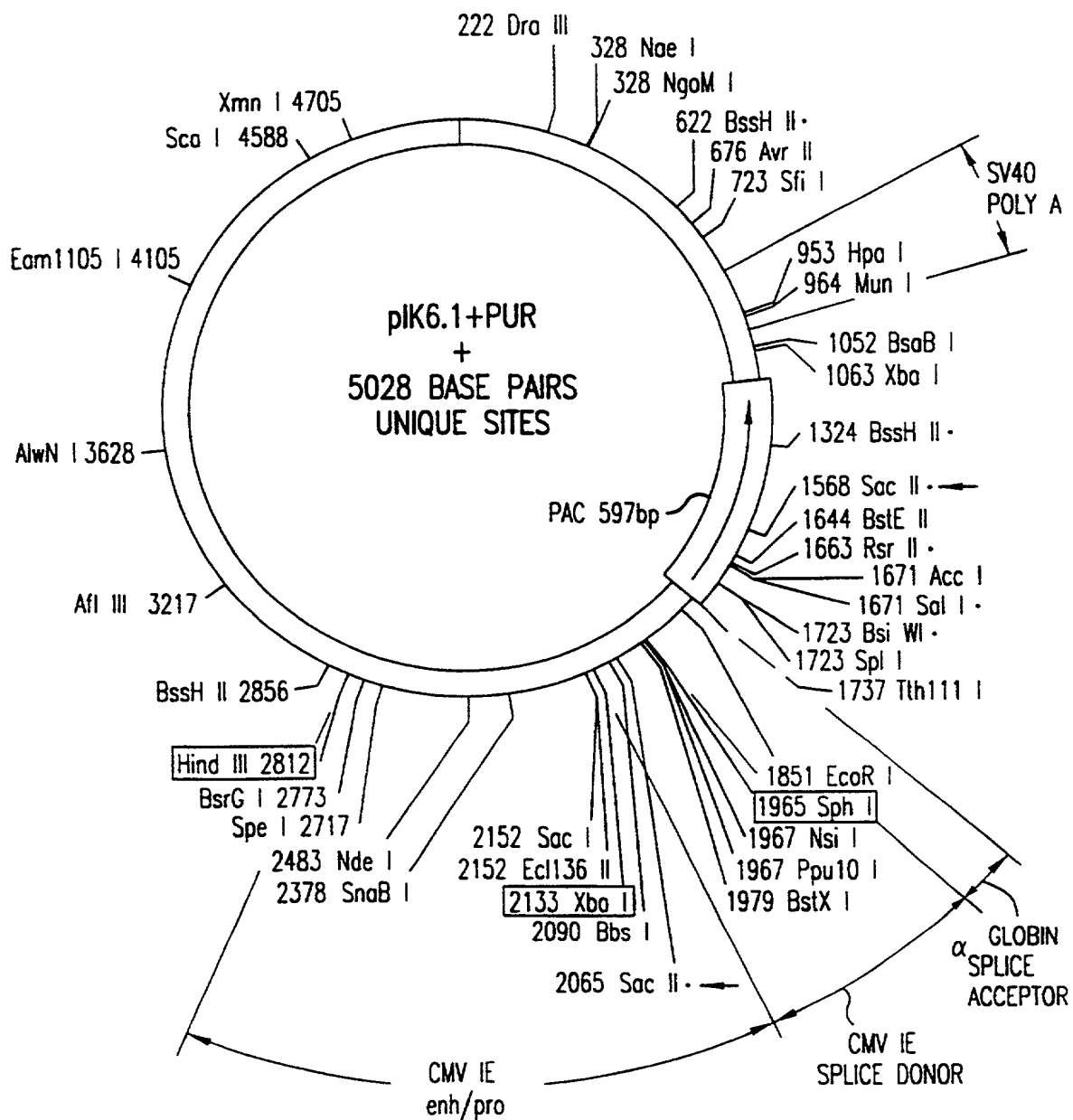


FIG.48

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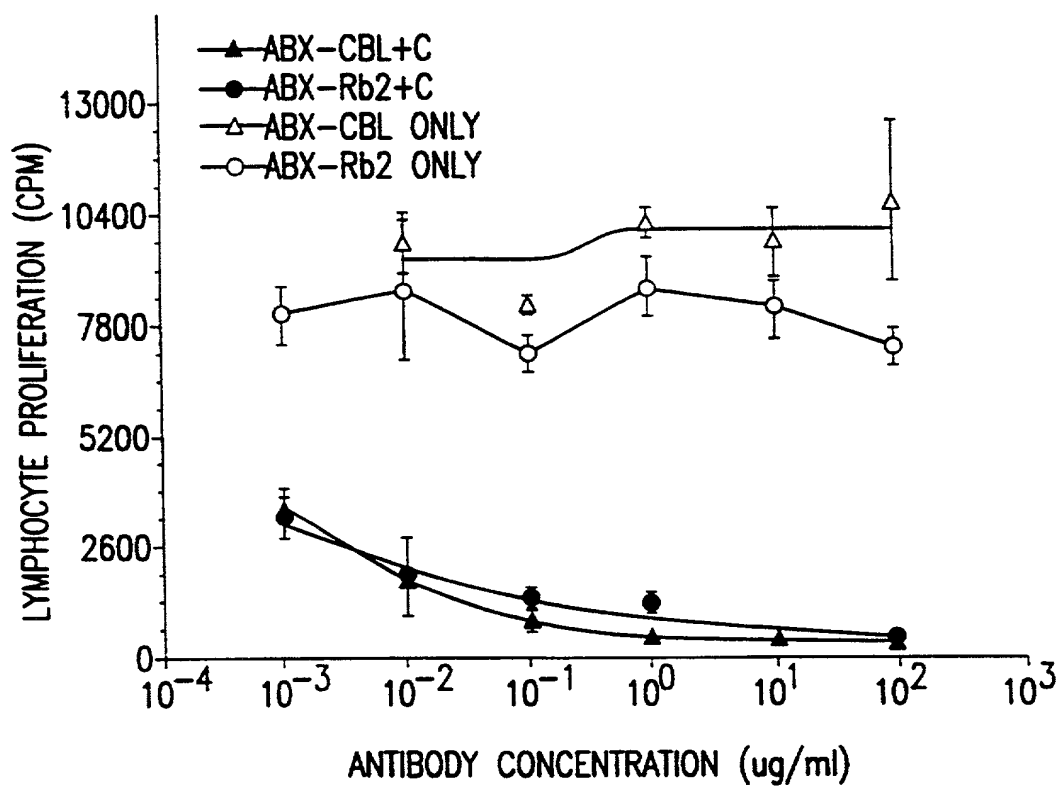


FIG.49

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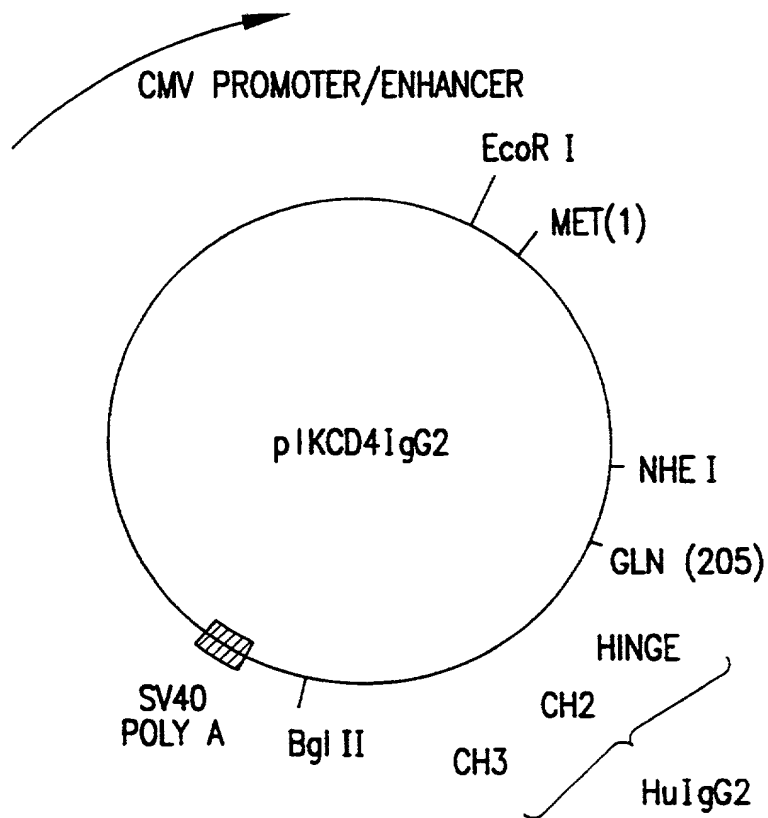
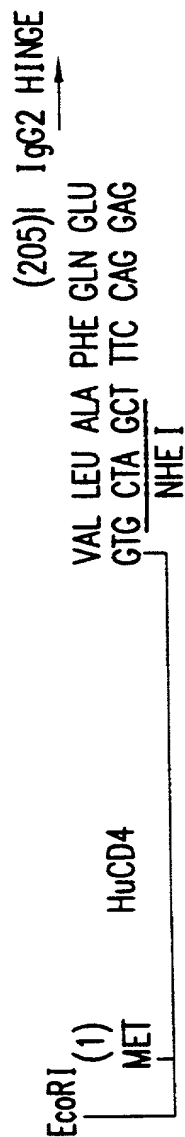
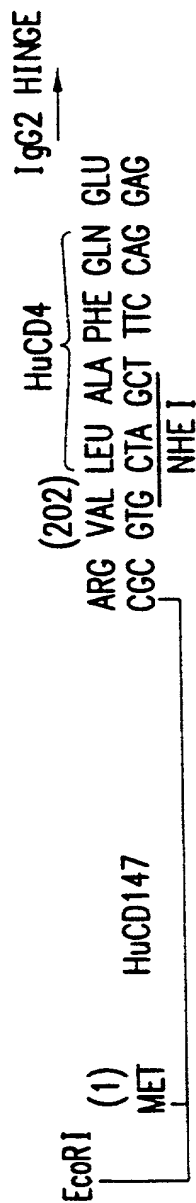


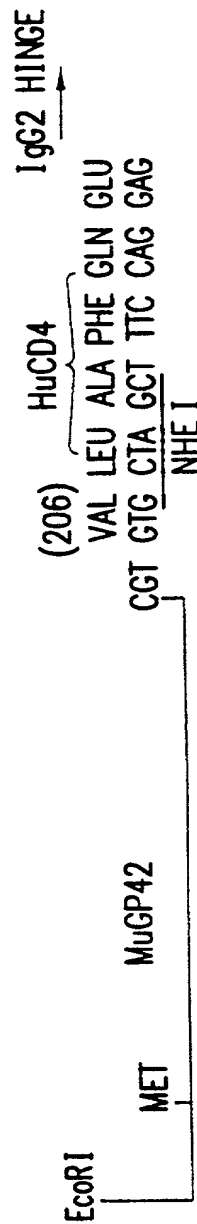
FIG.50A



HuCD4IgG2



HuCD147IgG2



MuGP42IgG2

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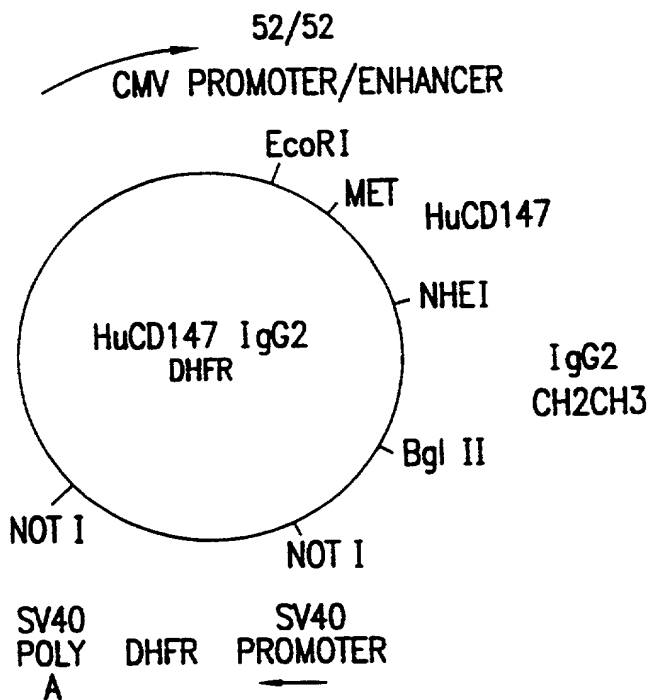


FIG.50E

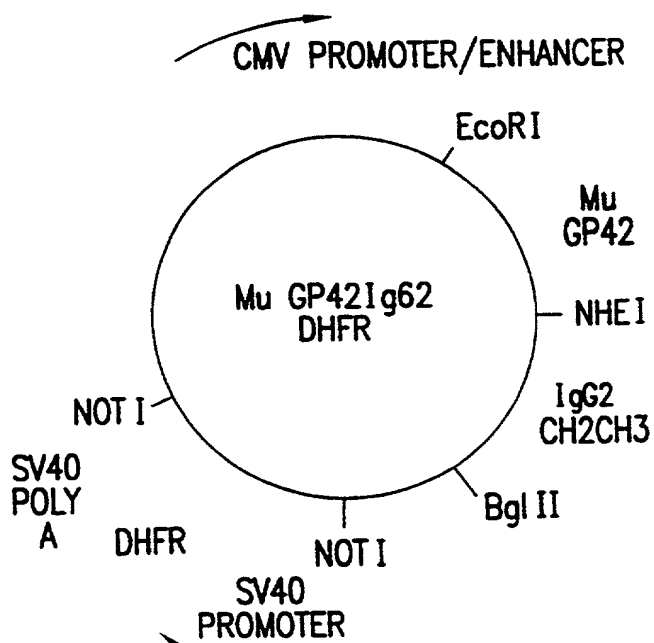


FIG.50F